

# Good. Safe. Klingspor.

Catalogue 2024/2025

**Klingspor**  
Abrasive Technology



Klingspor products are marked with the oSa label



## What does oSa mean?

In a host of applications, grinding and cutting require very high peripheral speeds from the rotating abrasive product. These products must therefore be particularly safe so as to stand up to the extreme mechanical and thermal stress.

Regrettably there are no globally binding safety requirements for abrasive products.

This is why responsible manufacturers of abrasive products from a number of European countries set up the Organisation for the Safety of Abrasives (oSa) in 2000 and thus setting a clear signal against inferior and dangerous products.

The user recognises these quality grade products from the oSa trade name. They signify to the manufacturer and trader a reduced liability risk, a market and competitive benefit and an image gain.

As a part of their in-house quality management system, the manufacturers see to it that the exact provisions are kept to and that only safe, high quality abrasive products are produced and marketed. The fact that the oSa – Organisation for the Safety of Abrasives - issues the worldwide protected oSa trademark to members is confirmation of this internal commitment.

The oSa label does not mean that the Organisation for the Safety of Abrasives or its institutions assume any liability of the designated products.



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# The product groups at a glance

With this catalogue, Klingspor makes it quick and easy to select the products you need from our huge range of top quality abrasives. The clearly arranged categorisation into thirteen product groups will help you quickly find what you are looking for.

State-of-the-art manufacturing techniques ensure that our coated abrasives fulfill the most demanding standards of surface finish, long life and stock removal.



#### **Belts**

Klingspor abrasive belts are available in various sizes and grades to meet all grinding, sanding and finishing requirements for a wide range of materials and applications.



#### **Fibre discs**

Klingspor fibre discs are exceptionally suited for rough grinding work, rust removal, deburring and working on welded seams.



#### **Rolls**

Klingspor rolls for hand sanding or use with handheld machines are available in a number of special grades designed for a wide variety of materials – from wood, to metal, to paint.



#### **Abrasive strips, sheets and discs**

Klingspor strips, sheets and discs are available in various qualities and designs.



#### **Abrasive flap wheels**

The abrasive flap wheel is particularly suitable for finishing where flexibility is a must. It matches the contours of any workpiece perfectly. Klingspor has the right abrasive flap wheel for virtually every application and for nearly all types of material.



# General information

## Product overview



### Non-woven products

Klingspor offers a large variety of non-woven products. From rolled goods, belts and wheels to abrasive angle grinder mop discs and abrasive spindle mop varieties.



### Wire brushes

Klingspor wire brushes for use on the most diverse cleaning and surface preparation applications on steel and stainless steel.



### Abrasive flap discs

The performance of the Klingspor abrasive flap disc, with its fan-shaped radial arrangement of the cloth grinding flaps, far exceeds that of other abrasive products.



### Kronenflex grinding discs and cutting-off wheels

Continuous innovation and the development of specialised products for all application areas enables Klingspor to offer a range of grinding discs and cutting-off wheels to satisfy every need.



### Retail range

The complete range available with relevant grit ranges and assortments in customised packing units. Uniform packing design with precise product identification for quick access.



### Flexible abrasives

Flexible abrasives which were developed by Klingspor for precision finishing and polishing work on all kinds of surfaces.



### Carbide burs

Klingspor carbide burs are manufactured according to the highest quality standards and with utmost precision. The different cuts are adapted to meet the specific requirements of various materials and applications.



### Diamond tools

Klingspor's comprehensive range of diamond tools makes it easy for any user to work faster and with greater precision and endurance. As they are made of carefully tested premium grade materials, the products included in each product line offer a wide range of possible applications and meet the highest safety standards.

# General information

## Product overview



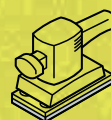
Hand sanding



Hand block



Handheld brush



Orbital sander



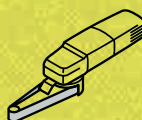
Random orbital sander



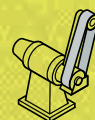
Delta sander



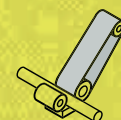
Portable belt sander



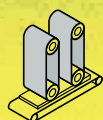
Hand tool belt grinder



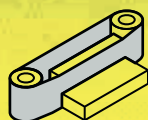
Back stand grinding machine



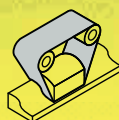
Centreless finishing machine



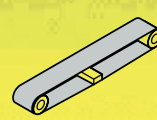
Through-feed grinding machine



Edge sanding machine



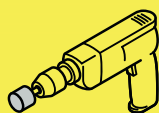
Contour finishing machine



Pad / stroke sanding machine



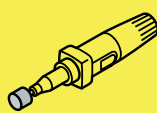
Wide belt finishing machine



Drilling machine



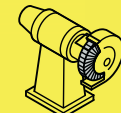
Cordless screwdriver



Barrel grinder



Satin finishing machine

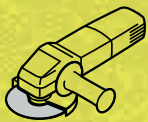


Floor standing grinder

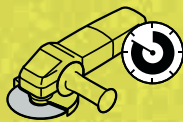


# General information

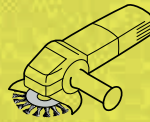
## Product overview



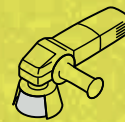
Angle grinder



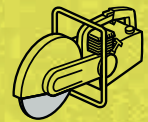
Variable speed angle grinder



Angle grinder with brush



Angle grinder with cup grinding wheel



Petrol powered cutter



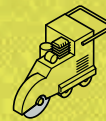
Stationary cutting machine  $\leq 5\text{kW}$



Chop saw



Drilling machine



Joint cutter



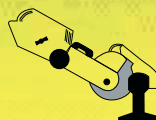
Lifting beam with mottling points



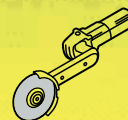
Right angle die grinder



Die grinder



Petrol powered cutter with clamping device



Fillet weld grinder

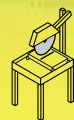
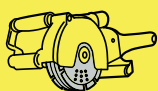


Table saw



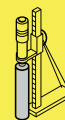
Joint router



Stationary cutting machine  $> 5\text{kW}$



Parquet sander



Drill stand

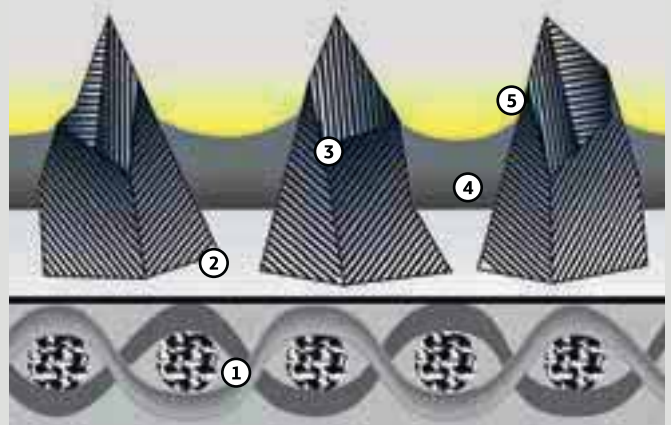


# Coated abrasives

## Applications guide

Coated abrasives are abrasive products that are made out of more or less flexible backing material upon which grit is anchored with a bonding agent. The product family “coated abrasives” includes abrasive belts, rolls, sheets, strips and discs. They comprise of the following four, optionally also five, components (please refer to the illustration on the right).

- ▶ 1. Backing
- ▶ 2. Base coat
- ▶ 3. Grit
- ▶ 4. Topsize coat
- ▶ 5. Optional: additional coating



## Structure

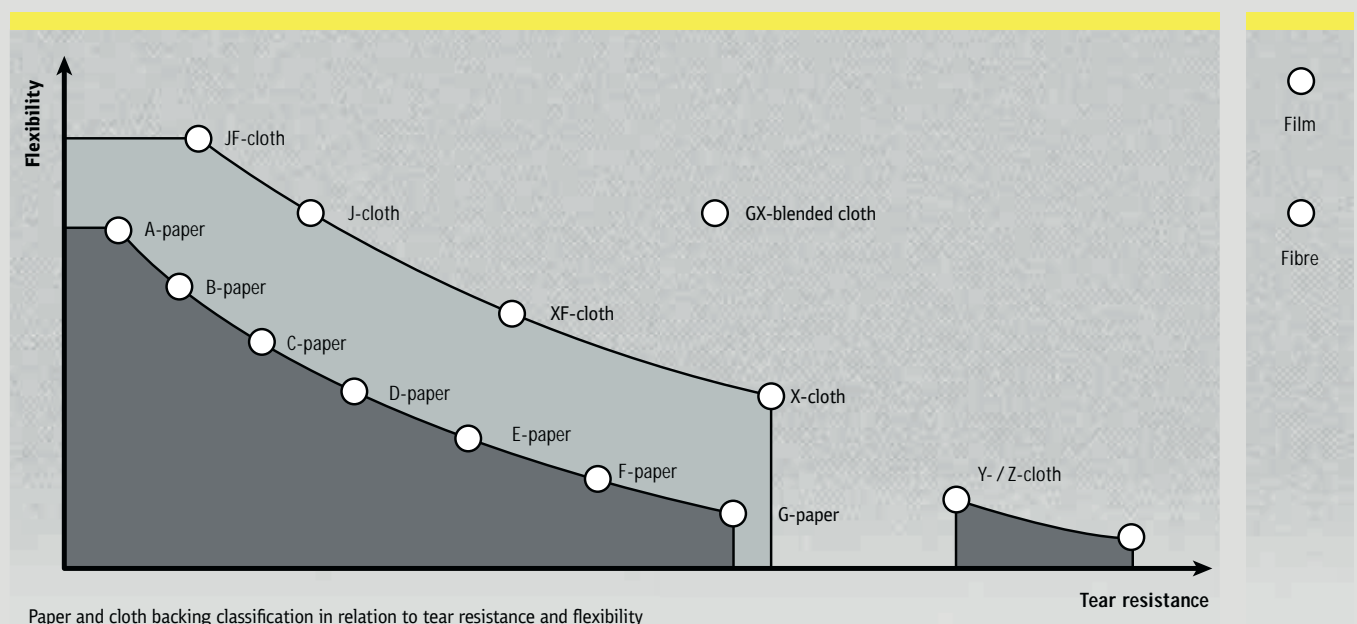
### 1. Coated abrasive backing

The backing is coated with grit and transfers stock removal forces onto the workpiece. The following backings are primarily used in the manufacture of coated abrasives:

- ▶ Paper
- ▶ Cotton cloth
- ▶ Polyester cloth

In addition, at Klingspor the following backings are used exclusively for individual products and/or for specific requirements/applications:

- ▶ Fibre (is used exclusively for fibre discs on portable angle grinders)
- ▶ Film (is used exclusively for the products FP 73 W and FP 73 WK)
- ▶ GX-blended cloth (special cotton/polyester blend for flexible yet highly tear resistant belts)



Backing	Description	Application examples
A – paper	approx. 95 g/m <sup>2</sup>	profile + surface finishing (hand)
B – paper	approx. 105 g/m <sup>2</sup>	profile + surface finishing (hand and machine)
C – paper	approx. 110 g/m <sup>2</sup>	surface finishing (hand and machine)
D – paper	approx. 130 g/m <sup>2</sup>	surface finishing (hand and machine)
E – paper	approx. 250 g/m <sup>2</sup>	surface grinding and sanding (machine)
F – paper	approx. 300 g/m <sup>2</sup>	surface grinding and sanding (machine)
G – paper	approx. 400 g/m <sup>2</sup>	surface grinding and sanding (machine)
JF – cloth	light, highly flexible	high profiled workpieces (hand and machine)
GX – blended cloth	light, flexible	profiled workpieces (machine)
J – cloth	light, flexible	profiled workpieces (hand and machine)
XF – cloth	heavy, flexible	hand tool belt grinder
X – cloth	heavy, firm	surface and edge grinding and sanding (hand and machine)
Y – polyester	heavy, highly firm	surface and edge grinding and sanding (machine)
Z – polyester	heavy, highly firm, can be segmented	surface grinding (machine)
Film	polyester film	finishing
Fibre	vulcanised fibre	grinding and finishing

## 2. Base coat

In the base coat step the grit is anchored. The basic bond is the connection between the grit and the backing. It is primarily formed using resin, this provides it with its consistent high quality properties. Glue is only added to a few abrasive papers that are used with hand operated machines and applications.

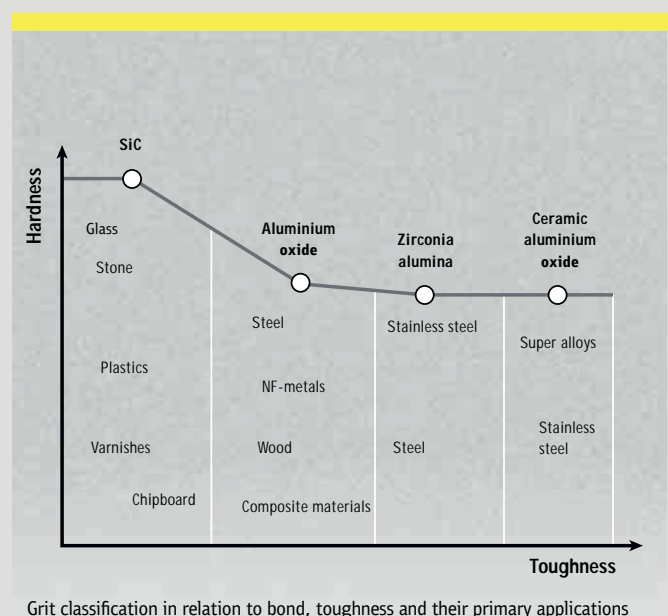
## 3. Grit

Grit is responsible for stock removal. When selecting the correct grit two properties are particularly important:

- Bond
- Toughness



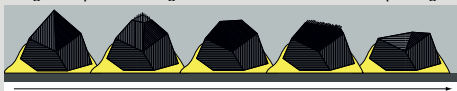
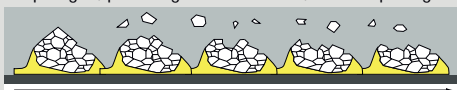
All Klingspor grit types are produced synthetically. This ensures a consistently high quality product. Four different grit types are used with coated abrasives:

- Silicon carbide
- Aluminium oxide
- Zirconia alumina
- Ceramic aluminium oxide

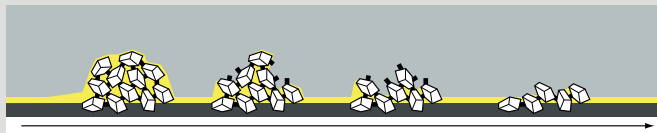


# Coated abrasives

## Applications guide

Grain type	Bond / toughness	Structure	Properties / wear properties
Silicon carbide (SiC)	very hard / less tough	crystalline	sharp-edged, brittle, highly friable / micro-wear 
Aluminium oxide	hard / tough	crystalline, irregular	wedge-shaped, block grain, even wear 
Zirconia alumina	hard / very tough	crystalline, even	wedge-shaped, block grain / micro-wear, self-sharpening 
Ceramic aluminium oxide	hard / very tough	micro-crystalline	sharp-edged, pointed grit / micro-wear, self-sharpening 

Grit type properties and their specific wear properties



Definition	Description
Close coating	The entire surface of the backing is coated with grit
Semi-open coating	Approx. 75% of the backing surface is coated with grit
Open coating	Approx. 50% of the backing surface is coated with grit

In addition, there are also so-called grit agglomerates. This is not an independent grit type, rather it is a grit agglomeration which is comprised of many individual aluminium-oxide or SiC-grits mixed with a resin bonding agent, which together form a large grit. Agglomerates are used almost exclusively on abrasive belts.

The advantage of agglomerates is that they provide an even finish from the first use to the last. Dull grit breaks off from the agglomerate and creates space for new, sharp grit. The objective is to attain an even finish through continual stock removal and an extremely long service life.

### Coating

Moreover, the coated abrasives are coated with different grit coverage densities. The term "grit density" describes the grit coverage density distributed on the backing.

One differentiates between:

- close coating
- semi-open coating
- open coating

Open coated grit has a large space between the individual grits, such that the stock removal and the grinding dust can be extracted more easily from the grinding surface. This prevents premature clogging when working on long-chipping materials, such as wood.

The decision as to which grit density to use is primarily dependent upon how great the likelihood is that the grinding dust will clog the space between the grits.



## Grit size chart

	Extra fine												Fine		Coarse		Extra coarse																																							
	Micro finishing		Finishing										Inter- mediate grinding	Rough grinding																																										
FEPA	P 2000		P 1500		P 1200		P 1000		P 800		P 600		P 500		P 400		P 360		P 320		P 280		P 240		P 220		P 180		P 150		P 120		P 100		P 80		P 60		P 50		P 40		P 36		P 30		P 24		P 20		P 16		P 12			
ANSI					600		500		400		360				320				280				240				220		180		150		120		100		80		60		50		40		36		30		24		20		16		12	
JIS	2000		1500		1200		1000		800		600		500		400		360		320		280		240				220		180		150		120		100		80		60		50		40		36		30		24		20		16		12	

## 4. Size coat

The size coat supports the base coat in the anchoring of the grit on the backing and against forces which affect the grit during grinding. The cover bonds are produced exclusively from resin and also provide the product with its typical colour (exceptions are coated abrasives with additional coatings).

## 5. Special coatings

Special coatings with grinding aids provide the grinding tool properties that positively affect the grinding process and extends the service life of the coated abrasive. Special coatings are applied as an additional layer.

### Stearate coating

The stearate on a coated abrasive prevents the clogging and loading of the belt and is specifically suited for high quality varnish surface applications. Paints, varnishes and plastics can become soft and sticky through the heat generated from grinding, this can result in the premature clogging and loading of the belt. The dust clogs the space between the grits and this can result in additional "negative bond". This clogs the grits and the sharp edges are no longer effective. To prevent this from happening or to slow the process down, the coated abrasives can be coated with a non-stick material, so-called stearates.

### Multibond

The multibond, like the stearate coating, is applied in an additional production step to the cover bond layer. This allows the cool grinding of stainless steel and high alloy steels, which in turn increases the stock removal rate and service life.

### ACT – Advanced Coating Technology

Klingspor uses this technology to improve the properties of the coated abrasives. When working on metal, ACT provides significantly higher grit adhesion, e.g. for aggressive belt grinding of the edges of punched parts and castings. This significantly increases the life of the grinding belt. For belts that are used for wood and varnish sanding, ACT prevents the premature clogging of the coated abrasives and significantly increases the service life.

### Antistatic

Electrode migration is the result of friction i.e. grinding between different materials, and in turn causes charge separation, which in the case of non-conductive materials, such as wood, results in the load differences not being balanced. In these cases, the coated abrasive is equipped with antistatic properties that ground the electrical charge through the coated abrasive and the machine. This prevents the grinding dust from adhering to the workpiece, belt and machine.

# Rolls with paper backing

Coated abrasives

Abrasive paper

## PS 30 D



### Properties

Bonding agent	Resin
Grain	Aluminium oxide
Coating	Semi-open
Backing	D-paper

### Applications:

Paint/Varnish/Filler	●
Wood	●
Metals	○

**Advantages:** Sharp grit and high aggressiveness for use on wood, varnish, fillers - Flexible and tear-resistant, easy folding - Product with good price-performance ratio

Available grits:

16	24	30	36	40	50	60	80	100	120	150	180	220	240	280	320	360	400	500	600	800	1000	1200	1500	2000	2500	3000
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Width x Length in mm	Grit	Packing unit/pcs.	Cat. number
100 x 50000	40	1	252415
100 x 50000	60	1	252419
100 x 50000	80	1	252420
100 x 50000	120	1	252422
100 x 50000	180	1	252424
115 x 50000	40	1	174086
115 x 50000	60	1	174088
115 x 50000	80	1	174089
115 x 50000	120	1	174091
115 x 50000	180	1	174093

Other grits and sizes available on request.

# Rolls with paper backing

Coated abrasives



Finishing paper

## PL 31 B



### Properties

Bonding agent	Glue
Grain	Aluminium oxide
Coating	Semi-open
Backing	B-paper

### Applications:

Paint/Varnish/Filler	●
Wood	●
Metals	⦿

**Advantages:** Product with optimal price-performance ratio - Optimized wear properties for hand sanding and handheld machine sanding

Available grits:

16	24	30	36	40	50	60	80	100	120	150	180	220	240	280	320	360	400	500	600	800	1000	1200	1500	2000	2500	3000
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Width x Length in mm	Grit	Packing unit/pcs.	Cat. number
95 x 50000	60	1	3281
95 x 50000	80	1	3282
95 x 50000	100	1	3191
95 x 50000	120	1	3192

Abrasive paper

## PS 33 C



### Properties

Bonding agent	Resin
Grain	Aluminium oxide
Coating	Semi-open
Backing	C-paper

### Applications:

Paint/Varnish/Filler	●
Wood	●
Plastic	⦿

**Advantages:** Very high removal rate - Minimal clogging due to active abrasive substances - Longer service life - Good tear resistance and flexibility

Available grits:

16	24	30	36	40	50	60	80	100	120	150	180	220	240	280	320	360	400	500	600	800	1000	1200	1500	2000	2500	3000
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Width x Length in mm	Grit	Packing unit/pcs.	Cat. number
100 x 50000	80	1	248544
100 x 50000	100	1	201722
100 x 50000	120	1	300082
115 x 50000	40	1	158947
115 x 50000	60	1	155815
115 x 50000	80	1	147575
115 x 50000	100	1	147576
115 x 50000	120	1	153398

Other grits and sizes available on request.



# Rolls with paper backing

Coated abrasives

Abrasive paper

## PS 33 B



### Properties

Bonding agent	Resin
Grain	Aluminium oxide
Coating	Semi-open
Backing	B-paper

### Applications:

Paint/Varnish/Filler	●
Wood	●
Plastic	○

**Advantages:** Very high removal rate - Minimal clogging due to active abrasive substances - Longer service life - Good tear resistance and flexibility

Available grits:

16	24	30	36	40	50	60	80	100	120	150	180	220	240	280	320	360	400	500	600	800	1000	1200	1500	2000	2500	3000
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Width x Length in mm	Grit	Packing unit/pcs.	Cat. number
100 x 50000	180	1	212055
100 x 50000	240	1	160282
115 x 50000	150	1	153177
115 x 50000	180	1	149480
115 x 50000	240	1	147055
115 x 50000	320	1	148891
115 x 50000	400	1	145520

Abrasive cloth

## KL 381 J



### Properties

Bonding agent	Glue/resin
Grain	Aluminium oxide
Coating	Close
Backing	J-cotton

### Applications:

Wood	●
Metals	●

**Advantages:** Standard product for wood and metal processing

Available grits:

16	24	30	36	40	50	60	80	100	120	150	180	220	240	280	320	360	400	500	600	800	1000	1200	1500	2000	2500	3000
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Width x Length in mm	Grit	Packing unit/pcs.	Cat. number
25 x 50000	40	1	337941
25 x 50000	60	1	337959
25 x 50000	80	1	337951
25 x 50000	120	1	337952
25 x 50000	180	1	337953
25 x 50000	240	1	337954

Other grits and sizes available on request.



# Rolls with cloth backing / Graphite coated canvas

Coated abrasives

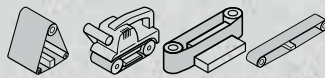


## ►►Continuation of KL 381 J, Abrasive cloth

Width x Length in mm	Grit	Packing unit/pcs.	Cat. number
50 x 50000	40	1	337955
50 x 50000	60	1	337958
50 x 50000	80	1	337960
50 x 50000	100	1	337957
50 x 50000	120	1	337956
50 x 50000	180	1	337961
50 x 50000	240	1	337962
50 x 50000	320	1	359015
50 x 50000	400	1	364579

Graphite coated canvas

## CS 395 X



### Properties

Grain	Graphite
Coating	Lamellar
Backing	X-cloth



**Advantages:** Reduces friction between the back side of the belt and the contact element - Reduces heat generation during the grinding process - Enables a smooth and constant grinding

**No self-fastening support**

All sizes and minimum purchasing quantities available on request

Other grits and sizes available on request.

# File belts

## Coated abrasives

Abrasive cloth, multibond

### CS 409 Y



#### Properties

Bonding agent	Resin
Grain	Zirconia alumina
Coating	Close
Backing	Y-polyester

#### Applications:

Stainless steel	●
NF metals	○

**Advantages:** Aggressive abrasive behaviour - Cool grinding and increased grinding performance on stainless steel and high-alloy steels due to additional multibond - Very long service life also when used for grinding of non-ferrous metals

#### Available grits:

16	24	30	36	40	50	60	80	100	120	150	180	220	240	280	320	360	400	500	600	800	1000	1200	1500	2000	2500	3000
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Width x Length in mm	Grit	Belt joint	Packing unit/pcs.	Cat. number
10 x 330	60	F4G	50	255422
20 x 520	60	F4G	50	255432

Abrasive cloth

### CS 411 X



#### Properties

Bonding agent	Resin
Grain	Zirconia alumina
Coating	Close
Backing	X-cotton

#### Applications:

Stainless steel	●
Steel	●
Metals	●

**Advantages:** High aggressiveness and abrasive performance in rough grinding of steel and stainless steel - Very versatile in all areas of metalworking

#### Available grits:

16	24	30	36	40	50	60	80	100	120	150	180	220	240	280	320	360	400	500	600	800	1000	1200	1500	2000	2500	3000
----	----	----	----	----	----	----	----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	------	------	------	------	------	------

Width x Length in mm	Grit	Belt joint	Packing unit/pcs.	Cat. number
10 x 330	60	F4G	25	78849
12 x 330	60	F4G	25	255423

Other grits and sizes available on request.

Please observe: Due to Manufacturing efficiencies, we reserve the right to over make or under make quantities of custom made belts.



Abrasive cloth, waterproof

## CS 416 Y



### Properties

Bonding agent	Resin
Grain	Zirconia alumina
Coating	Semi-open
Backing	Y-polyester

### Applications:

Stainless steel	●
Plastic	●
Leather	●
NF metals	⓪

**Advantages:** Very high aggressiveness and abrasive performance - Long service life also when used on materials that cause clogging

### Available grits:

16	24	30	36	40	50	60	80	100	120	150	180	220	240	280	320	360	400	500	600	800	1000	1200	1500	2000	2500	3000
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Width x Length in mm	Grit	Belt joint	Packing unit/pcs.	Cat. number
10 x 330	40	F4G	25	318648
10 x 330	60	F4G	25	307971
10 x 330	80	F4G	25	307972
10 x 330	120	F4G	25	318651
13 x 457	40	F4G	25	655560
13 x 457	60	F4G	25	379547
13 x 457	80	F4G	25	649552
13 x 457	120	F4G	25	655514
20 x 520	40	F4G	50	318649
20 x 520	60	F4G	50	307973
20 x 520	80	F4G	50	307974
20 x 520	120	F4G	50	318650

Other grits and sizes available on request.

Please observe: Due to Manufacturing efficiencies, we reserve the right to over make or under make quantities of custom made belts.

# Short belts for hand held machines

Coated abrasives

Abrasive cloth

## LS 309 XH



### Properties

Bonding agent	Resin
Grain	Aluminium oxide
Coating	Close
Backing	X-cotton

### Applications:

Wood	●
Metals	●
NF metals	●
Paint/Varnish/Filler	●



**Advantages:** Special type for portable belt sanders - For universal use on wood, metal, paint and varnish - Large product mix of belts for all standard machines

### Available grits:

16	24	30	36	40	50	60	80	100	120	150	180	220	240	280	320	360	400	500	600	800	1000	1200	1500	2000	2500	3000
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Width x Length in mm	Grit	Belt joint	Packing unit/pcs.	Cat. number
75 x 457	40	F5	10	329835
75 x 457	60	F5	10	329836
75 x 457	80	F5	10	329837
75 x 457	120	F5	10	329838
75 x 533	40	F5	10	321263
75 x 533	60	F5	10	321264
75 x 533	80	F5	10	321265
75 x 533	100	F5	10	321266
75 x 533	120	F5	10	321267
75 x 610	40	F5	10	321268
75 x 610	60	F5	10	321269
75 x 610	80	F5	10	321270
75 x 610	100	F5	10	321271
75 x 610	120	F5	10	321272
100 x 610	40	F5	10	321273
100 x 610	60	F5	10	321274
100 x 610	80	F5	10	321275
100 x 610	100	F5	10	321276
100 x 610	120	F5	10	321277

Other grits and sizes available on request.

Please observe: Due to Manufacturing efficiencies, we reserve the right to over make or under make quantities of custom made belts.

# Belts with paper backing

Coated abrasives



Abrasive paper

## PS 21 F



### Properties

Bonding agent	Resin
Grain	Zirconia alumina
Coating	Close
Backing	F-paper

### Applications:

Stainless steel	●
Metals	●
Steel	●

**Advantages:** High aggressiveness and long service life due to self-sharpening zirconia alumina - Specially developed for rough grinding through finish grinding of stainless steel surfaces

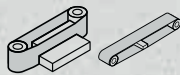
Available grits:

16 24 30 36 40 50 60 80 100 120 150 180 220 240 280 320 360 400 500 600 800 1000 1200 1500 2000 2500 3000

All sizes and minimum purchasing quantities available on request

Abrasive paper, ANTISTATIC

## PS 24 F ACT



### Properties

Bonding agent	Resin
Grain	SiC
Coating	Close
Backing	F-paper

### Applications:

Paint/Varnish/Filler	●
Plastic	●
Wood	ⓘ

**Advantages:** For hard and tough surfaces - Finely sanded and varnish surfaces in the wood and furniture industry - Long service life due to ACT recipe and antistatic properties

Available grits:

16 24 30 36 40 50 60 80 100 120 150 180 220 240 280 320 360 400 500 600 800 1000 1200 1500 2000 2500 3000

All sizes and minimum purchasing quantities available on request

Abrasive paper, ANTISTATIC

## PS 27 DW



### Properties

Bonding agent	Resin
Grain	SiC
Coating	Open
Backing	D-paper

### Applications:

Paint/Varnish/Filler	●
Aluminium	●
Plastic	ⓘ

**Advantages:** Special product for high-quality varnish surfaces, especially UV finishes - Substantially reduced clogging and longer service life due to additional special coating - Very fine surface scratch pattern

Available grits:

16 24 30 36 40 50 60 80 100 120 150 180 220 240 280 320 360 400 500 600 800 1000 1200 1500 2000 2500 3000

All sizes and minimum purchasing quantities available on request

Other grits and sizes available on request.


Please observe: Due to Manufacturing efficiencies, we reserve the right to over make or under make quantities of custom made belts.

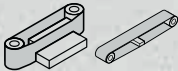
# Belts with paper backing

Coated abrasives

Abrasive paper, ANTISTATIC

## PS 29 F ACT





Properties	
Bonding agent	Resin
Grain	Aluminium oxide
Coating	Open
Backing	F-paper

Applications:	
Wood	●

**Advantages:** High-quality universal belt for general woodworking, especially softwood - Reduced clogging and longer service life due to ACT recipe and antistatic properties

Available grits:

- 16
- 24
- 30
- 36
- 40
- 50
- 60
- 80
- 100
- 120
- 150
- 180
- 220
- 240
- 280
- 320
- 360
- 400
- 500
- 600
- 800
- 1000
- 1200
- 1500
- 2000
- 2500
- 3000

All sizes and minimum purchasing quantities available on request

Other grits and sizes available on request.  
Please observe: Due to Manufacturing efficiencies, we reserve the right to over make or under make quantities of custom made belts.



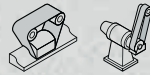
# Belts with cloth backing

Coated abrasives



Abrasive cloth

## LS 309 JF



### Properties

Bonding agent	Resin
Grain	Aluminium oxide
Coating	Close
Backing	JF-cotton

### Applications:

Metals	●
NF metals	●
Wood	●

**Advantages:** High removal rate in metalworking and woodworking - Very good adaptation to radiuses and contours due to highly flexible cotton backing

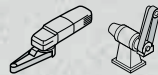
Available grits:

16 24 30 36 40 50 60 80 100 120 150 180 220 240 280 320 360 400 500 600 800 1000 1200 1500 2000 2500 3000

All sizes and minimum purchasing quantities available on request

Abrasive cloth

## CS 310 X



### Properties

Bonding agent	Resin
Grain	Aluminium oxide
Coating	Close
Backing	X-cotton

### Applications:

Stainless steel	●	Plastic	●
Wood	●		
Steel	●		
NF metals	●		

**Advantages:** High-quality universal type for metalworking and woodworking - Good removal rate under high stress

Available grits:

16 24 30 36 40 50 60 80 100 120 150 180 220 240 280 320 360 400 500 600 800 1000 1200 1500 2000 2500 3000

Width x Length in mm	Grit	Belt joint	Packing unit/pcs.	Cat. number
50 x 915	40	F4G	12	257198
50 x 915	60	F4G	12	257199
50 x 915	80	F4G	12	280156
50 x 915	120	F4G	12	284570

Other grits and sizes available on request.

Please observe: Due to Manufacturing efficiencies, we reserve the right to over make or under make quantities of custom made belts.

## Belts with cloth backing

Coated abrasives

Abrasive cloth ANTISTATIC

### CS 311 Y ACT



#### Properties

Bonding agent	Resin
Grain	Aluminium oxide
Coating	Open
Backing	Y-polyester

#### Applications:

Wood	●
Metals	○

**Advantages:** Good removal rate for working on wood under high stress - Minimal clogging and long service life due to ACT recipe and antistatic properties

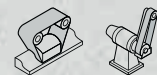
Available grits:

16 24 30 36 40 50 60 80 100 120 150 180 220 240 280 320 360 400 500 600 800 1000 1200 1500 2000 2500 3000

All sizes and minimum purchasing quantities available on request

Abrasive cloth

### LS 312 JF



#### Properties

Bonding agent	Resin
Grain	Aluminium oxide
Coating	Close
Backing	JF-cotton

#### Applications:

Stainless steel	●	Wood	○
Metals	●		
NF metals	●		
Steel	●		

**Advantages:** Outstanding removal rate and service life due to active abrasive substances - Very good adaptation to radiuses and contours due to highly flexible cotton backing

Available grits:

16 24 30 36 40 50 60 80 100 120 150 180 220 240 280 320 360 400 500 600 800 1000 1200 1500 2000 2500 3000

All sizes and minimum purchasing quantities available on request

Abrasive cloth, waterproof

### CS 320 Y



#### Properties

Bonding agent	Resin
Grain	SiC
Coating	Close
Backing	Y-polyester

#### Applications:

Glass/Stone	●
Mineral based materials	●
Plastic	●

**Advantages:** Outstanding abrasive performance on hard and difficult-to-machine materials - Ideal for high stress - Can be used wet or dry

Available grits:

16 24 30 36 40 50 60 80 100 120 150 180 220 240 280 320 360 400 500 600 800 1000 1200 1500 2000 2500 3000

All sizes and minimum purchasing quantities available on request

Other grits and sizes available on request.

Please observe: Due to Manufacturing efficiencies, we reserve the right to over make or under make quantities of custom made belts.

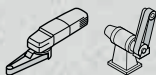
# Belts with cloth backing

Coated abrasives



Abrasive cloth, waterproof

## CS 321 X



### Properties

Bonding agent	Resin
Grain	SiC
Coating	Close
Backing	X-cotton

### Applications:

Glass/Stone	●
Mineral based materials	●
Plastic	●

**Advantages:** Outstanding abrasive performance on hard and difficult-to-machine materials - Ideal for wet grinding, but also suitable for dry grinding

Available grits:

16 24 30 36 40 50 60 80 100 120 150 180 220 240 280 320 360 400 500 600 800 1000 1200 1500 2000 2500 3000

All sizes and minimum purchasing quantities available on request

Abrasive cloth, waterproof

## CS 322 X



### Properties

Bonding agent	Resin
Grain	Cork
Backing	X-cotton

### Applications:

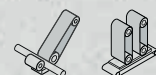
Glass/Stone	●
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**Advantages:** Special product for polishing glass with high quality cork/resin coating - Long life with consistent polishing effect - Waterproof

All sizes and minimum purchasing quantities available on request

Abrasive cloth, KULEX

## CS 326 Y



### Properties

Bonding agent	Resin
Grain	Al. oxide agglom.
Coating	Close
Backing	Y-polyester

### Applications:

Stainless steel	●
Steel	●

**Advantages:** Long-life abrasive belt for a satin surface scratch pattern, under medium to high grinding pressure - Extremely long life, with consistent surface roughness and finish - Suitable for wet grinding

Available grits:

16 24 30 36 40 50 60 80 100 120 150 180 220 240 280 320 360 400 500 600 800 1000 1200 1500 2000 2500 3000

All sizes and minimum purchasing quantities available on request

Other grits and sizes available on request.

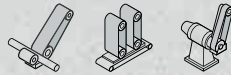
Please observe: Due to Manufacturing efficiencies, we reserve the right to over make or under make quantities of custom made belts.

## Belts with cloth backing

Coated abrasives

Abrasive cloth, multibond

### CS 409 Y



#### Properties

Bonding agent	Resin
Grain	Zirconia alumina
Coating	Close
Backing	Y-polyester

#### Applications:

Stainless steel	●
NF metals	○

**Advantages:** Aggressive abrasive behaviour - Cool grinding and increased grinding performance on stainless steel and high-alloy steels due to additional multibond - Very long service life also when used for grinding of non-ferrous metals

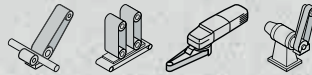
Available grits:

16	24	30	36	40	50	60	80	100	120	150	180	220	240	280	320	360	400	500	600	800	1000	1200	1500	2000	2500	3000
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Width x Length in mm	Grit	Belt joint	Packing unit/pcs.	Cat. number
50 x 915	40	F4G	12	280201
50 x 915	60	F4G	12	280202
50 x 915	80	F4G	12	280203
50 x 915	120	F4G	12	280204

Abrasive cloth

### CS 411 X



#### Properties

Bonding agent	Resin
Grain	Zirconia alumina
Coating	Close
Backing	X-cotton

#### Applications:

Stainless steel	●
Steel	●
Metals	●

**Advantages:** High aggressiveness and abrasive performance in rough grinding of steel and stainless steel - Very versatile in all areas of metalworking

Available grits:

16	24	30	36	40	50	60	80	100	120	150	180	220	240	280	320	360	400	500	600	800	1000	1200	1500	2000	2500	3000
----	----	----	----	----	----	----	----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	------	------	------	------	------	------

All sizes and minimum purchasing quantities available on request

Other grits and sizes available on request.

Please observe: Due to Manufacturing efficiencies, we reserve the right to over make or under make quantities of custom made belts.



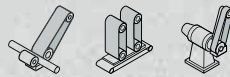
# Belts with cloth backing

Coated abrasives



Abrasive cloth, waterproof

## CS 412 Y



### Properties

Bonding agent	Resin
Grain	Aluminium oxide
Coating	Close
Backing	Y-polyester

### Applications:

Metals	●	Wood	●
NF metals	●		
Stainless steel	●		
Steel	●		

**Advantages:** High-quality universal type for wet and dry grinding of stainless steel, steel and other metal surfaces

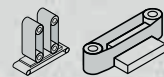
Available grits:

16	24	30	36	40	50	60	80	100	120	150	180	220	240	280	320	360	400	500	600	800	1000	1200	1500	2000	2500	3000
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All sizes and minimum purchasing quantities available on request

Abrasive cloth, waterproof

## CS 416 Y



### Properties

Bonding agent	Resin
Grain	Zirconia alumina
Coating	Semi-open
Backing	Y-polyester

### Applications:

Stainless steel	●
Plastic	●
NF metals	●

**Advantages:** Very high aggressiveness and abrasive performance - Long service life also when used on materials that cause clogging

Available grits:

16	24	30	36	40	50	60	80	100	120	150	180	220	240	280	320	360	400	500	600	800	1000	1200	1500	2000	2500	3000
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Width x Length in mm	Grit	Belt joint	Packing unit/pcs.	Cat. number
50 x 915	40	F4G	12	280622
50 x 915	60	F4G	12	280623
50 x 915	80	F4G	12	280624
50 x 915	120	F4G	12	280665
50 x 1220	40	F4G	12	281992
50 x 1220	60	F4G	12	281993
50 x 1220	80	F4G	12	281994
50 x 1220	120	F4G	12	282065
75 x 2000	36	F4G	10	204858
75 x 2000	40	F4G	10	205377
75 x 2000	60	F4G	10	207651
100 x 915	40	F4G	12	284572
100 x 915	60	F4G	12	284573
100 x 915	80	F4G	12	284575
100 x 915	120	F4G	12	318652
150 x 2000	36	F4G	10	231336
150 x 2000	40	F4G	10	205474
150 x 2000	60	F4G	10	204213

Other grits and sizes available on request.

Please observe: Due to Manufacturing efficiencies, we reserve the right to over make or under make quantities of custom made belts.

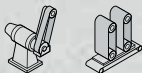
## Belts with cloth backing

Coated abrasives

**CEVOLUTION**

*Abrasive cloth, multibond*

### CS 920 Y ACT



#### Properties

Bonding agent	Resin
Grain	Ceramic Al. oxide
Coating	Close
Backing	Y-polyester

#### Applications:

Stainless steel	●
High alloy steel	●

**Advantages:** Special product with Advanced Coating-Technology (ACT) - Excellent grit adhesion - Highly tear-resistant polyester backing and self sharpening ceramic grain for rough, and intermediate grinding of stainless steel and high alloyed steel at high loads - Higher service life and cool grinding due to special coating with active multibond - The CS 920 Y belt includes the new CEVOLUTION technology. CEVOLUTION stands for holistically optimized, ceramic abrasives. Klingspor products with CEVOLUTION technology contain, among others, an optimized grit mix, grit sizes and formulation in order to offer the maximum performance in every application.

Available grits:

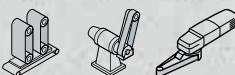
16 24 30 36 40 50 60 80 100 120 150 180 220 240 280 320 360 400 500 600 800 1000 1200 1500 2000 2500 3000

All sizes and minimum purchasing quantities available on request

**CEVOLUTION**

*Abrasive cloth, waterproof*

### CS 922 Y ACT



#### Properties

Bonding agent	Resin
Grain	Ceramic Al. oxide
Coating	Close
Backing	Y-polyester

#### Applications:

Stainless steel	●
Steel	●

**Advantages:** Continuously aggressive grinding behaviour - Long service life due to self-sharpening ceramic grit - Very high grain adhesion thanks to Advanced Coating Technology and highly tear-resistant polyester backing - The CS 922 Y belt includes the new CEVOLUTION technology. CEVOLUTION stands for holistically optimized, ceramic abrasives. Klingspor products with CEVOLUTION technology contain, among others, an optimized grit mix, grit sizes and formulation in order to offer the maximum performance in every application.

Available grits:

16 24 30 36 40 50 60 80 100 120 150 180 220 240 280 320 360 400 500 600 800 1000 1200 1500 2000 2500 3000

All sizes and minimum purchasing quantities available on request

Other grits and sizes available on request.

Please observe: Due to Manufacturing efficiencies, we reserve the right to over make or under make quantities of custom made belts.

# Belts with cloth backing

Coated abrasives



**CEVOLUTION**

Abrasive cloth, multibond

## CS 931 JF



### Properties

Bonding agent	Resin
Grain	Ceramic Al. oxide
Coating	Semi-open
Backing	JF-cotton

### Applications:

Stainless steel	●
Titanium/Alloy	●

**Advantages:** Special product with high flexible backing for the processing of stainless steel and high-alloyed steel - Continuously aggressive grinding properties with high lifetime due to semiopen coated self-sharpening ceramic grain - Very good adaptability to radiuses and edges through high flexible backing - The additional multibond provides a "cool grinding" in the processing of stainless steel and thus tempering colours are avoided - The CS 931 JF includes the new CEVOLUTION technology. CEVOLUTION stands for holistically optimized, ceramic abrasives. Klingspor products with CEVOLUTION technology contain, among others, an optimized grit mix, grit sizes and formulation in order to offer the maximum performance in every application.

### Available grits:

16 24 30 36 40 50 60 80 100 120 150 180 220 240 280 320 360 400 500 600 800 1000 1200 1500 2000 2500 3000

All sizes and minimum purchasing quantities available on request

Other grits and sizes available on request.

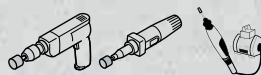
Please observe: Due to Manufacturing efficiencies, we reserve the right to over make or under make quantities of custom made belts.

# Spirabands

## Coated abrasives

Abrasive cloth, multibond

### CS 410 X



#### Properties

Bonding agent	Resin
Grain	Aluminium oxide
Coating	Close
Backing	X-cotton

#### Applications:

Stainless steel	●
NF metals	○

**Advantages:** Tear-resistant cloth with reinforced backing - Spiral shaped joint, cylindrical form - Cool grinding and no heat tinting due to additional multibond - Increased abrasive performance for use on stainless steel - High aggressiveness when used with rubber drum GK 555

Available grits:

16	24	30	36	40	50	60	80	100	120	150	180	220	240	280	320	360	400	500	600	800	1000	1200	1500	2000	2500	3000
----	----	----	----	----	----	----	----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	------	------	------	------	------	------

Diameter x Width in mm	Grit	Packing unit/pcs.	Cat. number
25 x 25	40	50	324117
25 x 25	60	50	324118
25 x 25	80	50	328368
25 x 25	120	50	328367
38 x 25	40	50	324119
38 x 25	60	50	324121

Rubber drums

### GK 555



**Advantages:** Reusable rubber drum for cylindrical abrasive sleeves CS 310 X and CS 451 X - Mounting and dismounting by a light turn

Diameter x Width x Shaft in mm	Max. operating speed	Max. RPM	Packing unit/pcs.	Cat. number
25 x 25 x 6	30 m/s	23000 rpm	1	329897
38 x 25 x 6	30 m/s	15000 rpm	1	329899

Other grits and sizes available on request.

Please observe: Minimum order quantities for manufactured items see page xx. Please see Applications Guide on page xx.



# Wide belts with paper backing

Coated abrasives



Abrasive paper

## PS 21 F



### Properties

Bonding agent	Resin
Grain	Zirconia alumina
Coating	Close
Backing	F-paper

### Applications:

Stainless steel	●
Metals	●
Steel	●



**Advantages:** Aggressive abrasive behaviour due to self-sharpening zirconia alumina - Optimal recipe for rough grinding and finish grinding of stainless steel

Available grits:

16 24 30 36 40 50 60 80 100 120 150 180 220 240 280 320 360 400 500 600 800 1000 1200 1500 2000 2500 3000

All sizes and minimum purchasing quantities available on request

Abrasive paper, ANTISTATIC

## PS 22 F ACT



### Properties

Bonding agent	Resin
Grain	Aluminium oxide
Coating	Close
Backing	F-paper

### Applications:

Wood	●	Plastic	●
Metals	●		
NF metals	●		
Paint/Varnish/Filler	●		



**Advantages:** High removal rate, fine surface scratch pattern, especially suitable for hardwood, HPL panels and melamine and primer foil coatings - Reduced clogging and longer service life due to ACT recipe and antistatic properties

Available grits:

16 24 30 36 40 50 60 80 100 120 150 180 220 240 280 320 360 400 500 600 800 1000 1200 1500 2000 2500 3000

All sizes and minimum purchasing quantities available on request

Other grits and sizes available on request.

Please observe: Due to Manufacturing efficiencies, we reserve the right to over make or under make quantities of custom made belts.

# Wide belts with paper backing

Coated abrasives

Abrasive paper, ANTISTATIC

## PS 24 F ACT



### Properties

Bonding agent	Resin
Grain	SiC
Coating	Close
Backing	F-paper

### Applications:

Stainless steel	●
Paint/Varnish/Filler	●
Plastic	●
Wood	◐

**Advantages:** For hard and tough surfaces - Produces a brilliant, high gloss finish on stainless steel surfaces due to the very hard and sharp-edged silicon carbide grit - Long service life on varnish surfaces in the wood and furniture industry due to ACT recipe and antistatic properties

Available grits:

16 24 30 36 40 50 60 80 100 120 150 180 220 240 280 320 360 400 500 600 800 1000 1200 1500 2000 2500 3000

All sizes and minimum purchasing quantities available on request

Abrasive paper, ANTISTATIC

## PS 27 DW



### Properties

Bonding agent	Resin
Grain	SiC
Coating	Open
Backing	D-paper

### Applications:

Paint/Varnish/Filler	●
Aluminium	●
Plastic	◐

**Advantages:** Special product for high-quality varnish surfaces, especially UV finishes - Substantially reduced clogging and significantly longer service life due to additional stearate coating and anti-static properties

Available grits:

16 24 30 36 40 50 60 80 100 120 150 180 220 240 280 320 360 400 500 600 800 1000 1200 1500 2000 2500 3000

All sizes and minimum purchasing quantities available on request

Other grits and sizes available on request.

Please observe: Due to Manufacturing efficiencies, we reserve the right to over make or under make quantities of custom made belts.

# Wide belts with paper / cloth backing

Coated abrasives



Abrasive paper, ANTISTATIC

## PS 29 F ACT



### Properties

Bonding agent	Resin
Grain	Aluminium oxide
Coating	Open
Backing	F-paper

### Applications:

Wood	●
------	---



**Advantages:** High-quality universal type for general woodworking - Large product mix - Reduced clogging and longer service life due to ACT recipe and antistatic properties

Available grits:

16 24 30 36 40 50 60 80 100 120 150 180 220 240 280 320 360 400 500 600 800 1000 1200 1500 2000 2500 3000

All sizes and minimum purchasing quantities available on request

Abrasive cloth

## CS 310 X



### Properties

Bonding agent	Resin
Grain	Aluminium oxide
Coating	Close
Backing	X-cotton

### Applications:

Metals	●	Plastic	○
Steel	●		
Stainless steel	●		
Wood	○		



**Advantages:** Universal product with optimal price-performance ratio - Available in a wide grit range

Available grits:

16 24 30 36 40 50 60 80 100 120 150 180 220 240 280 320 360 400 500 600 800 1000 1200 1500 2000 2500 3000

All sizes and minimum purchasing quantities available on request

Other grits and sizes available on request.

Please observe: Due to Manufacturing efficiencies, we reserve the right to over make or under make quantities of custom made belts.

## Wide belts with cloth backing

Coated abrasives

Abrasive cloth ANTISTATIC

### CS 311 Y ACT



#### Properties

Bonding agent	Resin
Grain	Aluminium oxide
Coating	Open
Backing	Y-polyester

#### Applications:

Wood	●
Metals	○



**Advantages:** Specially developed for calibration grinding of wood - Reduced clogging and longer service life due to ACT recipe and antistatic properties

Available grits:

16 24 30 36 40 50 60 80 100 120 150 180 220 240 280 320 360 400 500 600 800 1000 1200 1500 2000 2500 3000

All sizes and minimum purchasing quantities available on request

Abrasive cloth, waterproof

### CS 320 Y



#### Properties

Bonding agent	Resin
Grain	SiC
Coating	Close
Backing	Y-polyester

#### Applications:

Mineral based materials	●
Plastic	●



**Advantages:** Very hard and sharp silicon carbide grain for hard and tough workpiece surfaces - High aggressiveness and abrasive performance - Especially suitable for wet grinding

Available grits:

16 24 30 36 40 50 60 80 100 120 150 180 220 240 280 320 360 400 500 600 800 1000 1200 1500 2000 2500 3000

All sizes and minimum purchasing quantities available on request

Other grits and sizes available on request.

Please observe: Due to Manufacturing efficiencies, we reserve the right to over make or under make quantities of custom made belts.



# Wide belts with cloth backing

Coated abrasives



Abrasive cloth, waterproof

## CS 321 X



### Properties

Bonding agent	Resin
Grain	SiC
Coating	Close
Backing	X-cotton

### Applications:

Mineral based materials	●
Plastic	●
Stainless steel	●



**Advantages:** Produces a brilliant, glossy finish on stainless steel surfaces due to the very hard and sharp-edged silicon carbide grit - Very high aggressiveness and abrasive performance - Especially suitable for wet grinding

Available grits:

16 24 30 36 40 50 60 80 100 120 150 180 220 240 280 320 360 400 500 600 800 1000 1200 1500 2000 2500 3000

All sizes and minimum purchasing quantities available on request

Abrasive cloth, KULEX

## CS 326 Y



### Properties

Bonding agent	Resin
Grain	Al. oxide agglom.
Coating	Close
Backing	Y-polyester

### Applications:

Stainless steel	●
Steel	●



**Advantages:** Long-life abrasive belt for a satin surface scratch pattern, under medium to high grinding pressure - Extremely long life, with consistent surface roughness and finish - Suitable for wet grinding

Available grits:

16 24 30 36 40 50 60 80 100 120 150 180 220 240 280 320 360 400 500 600 800 1000 1200 1500 2000 2500 3000

All sizes and minimum purchasing quantities available on request

Other grits and sizes available on request.

Please observe: Due to Manufacturing efficiencies, we reserve the right to over make or under make quantities of custom made belts.

## Wide belts with cloth backing

Coated abrasives

Abrasive cloth, multibond

### CS 409 Y



#### Properties

Bonding agent	Resin
Grain	Zirconia alumina
Coating	Close
Backing	Y-polyester

#### Applications:

Stainless steel	●
-----------------	---

**Advantages:** Aggressive abrasive behaviour due to self-sharpening zirconia alumina - Prevents heat tinting on stainless steel - Cool grinding due to additional multibond - Minimal clogging when used on aluminium and aluminium alloys

Available grits:

16 24 30 36 40 50 60 80 100 120 150 180 220 240 280 320 360 400 500 600 800 1000 1200 1500 2000 2500 3000

All sizes and minimum purchasing quantities available on request

Abrasive cloth

### CS 411 X



#### Properties

Bonding agent	Resin
Grain	Zirconia alumina
Coating	Close
Backing	X-cotton

#### Applications:

Steel	●
Stainless steel	●
Metals	●

**Advantages:** Aggressive abrasive behaviour - High-performance product for use on steel and stainless steel

Available grits:

16 24 30 36 40 50 60 80 100 120 150 180 220 240 280 320 360 400 500 600 800 1000 1200 1500 2000 2500 3000

All sizes and minimum purchasing quantities available on request

Other grits and sizes available on request.

Please observe: Due to Manufacturing efficiencies, we reserve the right to over make or under make quantities of custom made belts.

# Wide belts with cloth backing

Coated abrasives



Abrasive cloth, waterproof

## CS 412 Y



### Properties

Bonding agent	Resin
Grain	Aluminium oxide
Coating	Close
Backing	Y-polyester

### Applications:

Stainless steel	●
Metals	●
Steel	●
NF metals	●

Wood	●
------	---

**Advantages:** Universal product for rough and intermediate grinding of steel and non-ferrous metals

Available grits:

16 24 30 36 40 50 60 80 100 120 150 180 220 240 280 320 360 400 500 600 800 1000 1200 1500 2000 2500 3000

All sizes and minimum purchasing quantities available on request

Abrasive cloth, waterproof

## CS 416 Y



### Properties

Bonding agent	Resin
Grain	Zirconia alumina
Coating	Semi-open
Backing	Y-polyester

### Applications:

Stainless steel	●
Plastic	●
Leather	●
NF metals	●

**Advantages:** Very high aggressiveness and abrasive performance - Long service life also when used on materials that cause clogging

Available grits:

16 24 30 36 40 50 60 80 100 120 150 180 220 240 280 320 360 400 500 600 800 1000 1200 1500 2000 2500 3000

All sizes and minimum purchasing quantities available on request

Other grits and sizes available on request.

Please observe: Due to Manufacturing efficiencies, we reserve the right to over make or under make quantities of custom made belts.

# Wide belts with cloth backing

Coated abrasives

**CEVOLUTION**

Abrasive cloth, multibond

## CS 920 Y ACT



### Properties

Bonding agent	Resin
Grain	Ceramic Al. oxide
Coating	Close
Backing	Y-polyester

### Applications:

Stainless steel	●
High alloy steel	●



**Advantages:** Special product with Advanced Coating-Technology (ACT) - Excellent grit adhesion - Highly tear-resistant polyester backing and self sharpening ceramic grain for rough, and intermediate grinding of stainless steel and high alloyed steel at high loads - Higher service life and cool grinding due to special coating with active multibond - The CS 920 Y includes the new CEVOLUTION technology. CEVOLUTION stands for holistically optimized, ceramic abrasives. Klingspor products with CEVOLUTION technology contain, among others, an optimized grit mix, grit sizes and formulation in order to offer the maximum performance in every application.

Available grits:

16 24 30 36 40 50 60 80 100 120 150 180 220 240 280 320 360 400 500 600 800 1000 1200 1500 2000 2500 3000

All sizes and minimum purchasing quantities available on request

**CEVOLUTION**

Abrasive cloth, waterproof

## CS 922 Y ACT



### Properties

Bonding agent	Resin
Grain	Ceramic Al. oxide
Coating	Close
Backing	Y-polyester

### Applications:

Stainless steel	●
Steel	●



**Advantages:** Continuously aggressive grinding behaviour - Long service life due to self-sharpening ceramic grit - Very high grain adhesion thanks to Advanced Coating Technology and highly tear-resistant polyester backing - The CS 922 Y includes the new CEVOLUTION technology. CEVOLUTION stands for holistically optimized, ceramic abrasives. Klingspor products with CEVOLUTION technology contain, among others, an optimized grit mix, grit sizes and formulation in order to offer the maximum performance in every application.

Available grits:

16 24 30 36 40 50 60 80 100 120 150 180 220 240 280 320 360 400 500 600 800 1000 1200 1500 2000 2500 3000

All sizes and minimum purchasing quantities available on request

Other grits and sizes available on request.

Please observe: Due to Manufacturing efficiencies, we reserve the right to over make or under make quantities of custom made belts.



## Notes



## Wide belts



# Fibre discs

## About the product

Klingspor fibre discs have high material removal rates and service life, producing an optimal finish. Suitable backing plates complete the product range.

Areas of use are steel, stainless steel, non-ferrous metal and cast iron. The comprehensive grit range makes it possible to select the right tool for every application. Even the most difficult of surfaces can be worked on easily with the fibre discs.

Klingspor fibre discs are outstanding for rough grinding and sanding, de-rusting metal parts, deburring and grinding welded seams. These discs are also suitable for precision finishing work on metals.

The state-of-the-art laser cutting technology allows special shapes for specific applications.



## Quality and performance

- ▶ Low clogging rate
- ▶ Market leading service life
- ▶ Even grinding finish
- ▶ Cool grinding

Applications Fibre Discs					
Application	Type	Grain	Backing	Coating	Characteristics
Steel / NF metals	<b>CS 561</b>	Aluminium oxide	Fibre	●	Abrasive fibre disc for working on steel and NF metals
	<b>FS 764 ACT</b>	Aluminium oxide	Fibre	●	Abrasive fibre disc for processing steel and non-ferrous metals. High aggressiveness and long service life due to Advanced Coating Technology
Steel / Stainless steel	<b>CS 565</b>	Zirconia alumina	Fibre	●	Abrasive fibre disc with high stock removal rate for rough grinding and deburring of steel and stainless steel
	<b>FS 964 ACT</b>	Ceramic aluminium oxide	Fibre	●	Premium fibre disc with micro-crystalline, self-sharpening ceramic grit delivering superior aggressiveness and removal on construction steel and high alloy steels. Outstanding grit adhesion and service life thanks to Advanced Coating Technology
Stainless steel	<b>CS 570</b>	Zirconia alumina	Fibre	●	High performance fibre disc with additional multibond for high stock removal rate and long service life for cool grinding on stainless steel and high alloy steel, especially for surface grinding
	<b>FS 966 ACT</b>	Ceramic aluminium oxide	Fibre	●	High performance fibre disc with very high stock removal rate and extremely long service life, with self-sharpening ceramic grain for the processing of high alloy steel, multibond for cool grinding. Improved grit adhesion due to Advanced Coating Technology

● = close   ● = semi-open   ○ = open

Technical information about the backing pad

The right backing pad		
Product		
	ST 358	ST 358 A
Backing pad form	Medium hard, flat	Hard, ribbed
Benefit	Even grinding finish, good adaptation to the workpiece	High material removal rates, high stability
		Additional benefit of our ribbed backing pad: increased aggression, cool grinding
Application	Finish grinding (grit 50 and finer), edge rounding, contour grinding, surface grinding	Rough grinding (up to grit 40 and coarser), chamfering, deburring work, welded seam work



### The safe use of Klingspor abrasives


Klingspor fibre discs have been tested according to the guidelines of the oSa directives and are guaranteed to comply with European safety standard EN 13743



Wear safety goggles or glasses to protect the eyes



Wear a dust mask




Use ear protectors




Only permitted with a backing pad




Wear safety gloves to protect hands



Observe safety instructions



Do not use for wet grinding



Do not use if damaged



### Hole pattern for fibre discs



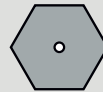
10 = round hole



30 = star-shaped hole



50 = X-LOCK



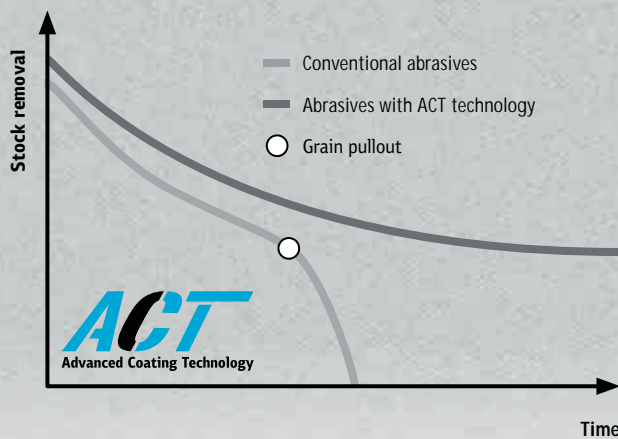
Additional special cutting shapes are available on request. Please ask for more information.

### Minimum order quantities for made to order items



We reserve the right to over-deliver or under-deliver made to order items.

Disc diameter	Minimum order quantities
up to 235 mm	1,000 pieces



#### ACT-Advanced Coating Technology:

Provides a significantly higher grit adhesion, when working on metal with fibre discs. This significantly increases the life.



# Fibre discs

## Coated abrasives

Abrasive fibre disc

### CS 561



#### Properties

Bonding agent	Resin
Grain	Aluminium oxide
Coating	Close

#### Applications:

Steel	●	Stainless steel	ⓘ
NF metals	●	Wood	ⓘ
Metals	●		
Plastic	ⓘ		



**Advantages:** For universal use - Largest selection of diameters, grit sizes and hole patterns

#### Available grits:

16	24	30	36	40	50	60	80	100	120	150	180	220	240	280	320	360	400	500	600	800	1000	1200	1500	2000	2500	3000
----	----	----	----	----	----	----	----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	------	------	------	------	------	------

Diameter x Hole in mm	Grit	Hole pattern	Max. RPM	Packing unit/pcs.	Cat. number
100 x 16	16	⊙ 10	15300 rpm	25	65708
100 x 16	24	⊙ 10	15300 rpm	25	65713
100 x 16	36	⊙ 10	15300 rpm	25	65718
100 x 16	60	⊙ 10	15300 rpm	25	65730
100 x 16	80	⊙ 10	15300 rpm	25	65735
100 x 16	120	⊙ 10	15300 rpm	25	65743
115 x 22	24	⊗ 30	13300 rpm	25	10978
115 x 22	36	⊗ 30	13300 rpm	25	10980
115 x 22	60	⊗ 30	13300 rpm	25	10983
115 x 22	80	⊗ 30	13300 rpm	25	10984
115 x 22	120	⊗ 30	13300 rpm	25	10986
125 x 22	16	⊗ 30	12200 rpm	25	11009
125 x 22	24	⊗ 30	12200 rpm	25	11010
125 x 22	36	⊗ 30	12200 rpm	25	11012
125 x 22	50	⊗ 30	12200 rpm	25	11014
125 x 22	60	⊗ 30	12200 rpm	25	11015
125 x 22	80	⊗ 30	12200 rpm	25	11016
125 x 22	120	⊗ 30	12200 rpm	25	11018
180 x 22	24	⊙ 10	8500 rpm	25	66451
180 x 22	36	⊙ 10	8500 rpm	25	66459
180 x 22	16	⊗ 30	8500 rpm	25	11057
180 x 22	24	⊗ 30	8500 rpm	25	11058
180 x 22	36	⊗ 30	8500 rpm	25	11060
180 x 22	60	⊗ 30	8500 rpm	25	11063
180 x 22	80	⊗ 30	8500 rpm	25	11064
180 x 22	100	⊗ 30	8500 rpm	25	11065
180 x 22	120	⊗ 30	8500 rpm	25	11066

Backing pads see page 46-47 / Dispenser see page 47

Abrasive fibre disc

## CS 565



### Properties

Bonding agent	Resin
Grain	Zirconia alumina
Coating	Close

### Applications:

Stainless steel	●
Steel	●
Metals	●



**Advantages:** Self-sharpening effect - High aggressiveness on steel and stainless steel - Ideal for rough grinding work - Excellent price-performance ratio

### Available grits:

16	24	30	36	40	50	60	80	100	120	150	180	220	240	280	320	360	400	500	600	800	1000	1200	1500	2000	2500	3000
----	----	----	----	----	----	----	----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	------	------	------	------	------	------

Diameter x Hole in mm	Grit	Hole pattern	Max. RPM	Packing unit/pcs.	Cat. number
100 x 16	24	⊙ 10	15300 rpm	25	100711
100 x 16	36	⊙ 10	15300 rpm	25	23680
100 x 16	60	⊙ 10	15300 rpm	25	84604
100 x 16	80	⊙ 10	15300 rpm	25	188678
115 x 22	24	⊗ 30	13300 rpm	25	95335
115 x 22	36	⊗ 30	13300 rpm	25	6686
115 x 22	60	⊗ 30	13300 rpm	25	6687
115 x 22	80	⊗ 30	13300 rpm	25	6688
125 x 22	24	⊗ 30	12200 rpm	25	97643
125 x 22	36	⊗ 30	12200 rpm	25	6620
125 x 22	50	⊗ 30	12200 rpm	25	93054
125 x 22	60	⊗ 30	12200 rpm	25	6721
125 x 22	80	⊗ 30	12200 rpm	25	23005
180 x 22	24	⊗ 30	8500 rpm	25	95993
180 x 22	36	⊗ 30	8500 rpm	25	65703
180 x 22	60	⊗ 30	8500 rpm	25	6690
180 x 22	80	⊗ 30	8500 rpm	25	6691

Backing pads see page 46-47 / Dispenser see page 47

# Fibre discs

## Coated abrasives

Abrasive fibre disc, multibond

### CS 570



#### Properties

Bonding agent	Resin
Grain	Zirconia alumina
Coating	Close

#### Applications:

Stainless steel	●
Aluminium	●
NF metals	⦿

**Advantages:** Self-sharpening effect - High aggressiveness, especially suitable for stainless steel - Increase in performance due to low temperatures - Multibond prevents heat tinting - Especially suitable for use on aluminium

#### Available grits:

16	24	30	36	40	50	60	80	100	120	150	180	220	240	280	320	360	400	500	600	800	1000	1200	1500	2000	2500	3000
----	----	----	----	----	----	----	----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	------	------	------	------	------	------

Diameter x Hole in mm	Grit	Hole pattern	Max. RPM	Packing unit/pcs.	Cat. number
100 x 16	36	⊙ 10	15300 rpm	25	204823
100 x 16	60	⊙ 10	15300 rpm	25	204825
100 x 16	80	⊙ 10	15300 rpm	25	204826
100 x 16	120	⊙ 10	15300 rpm	25	204828
115 x 22	36	⊗ 30	13300 rpm	25	204086
115 x 22	60	⊗ 30	13300 rpm	25	204088
115 x 22	80	⊗ 30	13300 rpm	25	204089
115 x 22	120	⊗ 30	13300 rpm	25	204091
125 x 22	24	⊗ 30	12200 rpm	25	204092
125 x 22	36	⊗ 30	12200 rpm	25	204093
125 x 22	60	⊗ 30	12200 rpm	25	204095
125 x 22	80	⊗ 30	12200 rpm	25	204096
125 x 22	100	⊗ 30	12200 rpm	25	204097
125 x 22	120	⊗ 30	12200 rpm	25	204098
180 x 22	24	⊗ 30	8500 rpm	25	204099
180 x 22	36	⊗ 30	8500 rpm	25	204100
180 x 22	60	⊗ 30	8500 rpm	25	204102
180 x 22	80	⊗ 30	8500 rpm	25	204103
180 x 22	120	⊗ 30	8500 rpm	25	204105

Backing pads see page 46-47 / Dispenser see page 47

Abrasive fibre disc

## FS 964 ACT



### Properties

Bonding agent	Resin
Grain	Ceramic Al. oxide
Coating	Close

### Applications:

Steel	●
Stainless steel	●



**Advantages:** Premium product with excellent performance for working on steel - Micro-crystalline self-sharpening effect - High aggressiveness thanks to self-sharpening, aggressive ceramic grains throughout the service life - Outstanding grit adhesion - Advanced coating technology (ACT) for extraordinary grain adhesion and extended service life

Available grits:

16	24	30	36	40	50	60	80	100	120	150	180	220	240	280	320	360	400	500	600	800	1000	1200	1500	2000	2500	3000
----	----	----	----	----	----	----	----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	------	------	------	------	------	------

Diameter x Hole in mm	Grit	Hole pattern	Max. RPM	Packing unit/pcs.	Cat. number
125 x 22	24	⊗ 30	12200 rpm	25	330484
125 x 22	36	⊗ 30	12200 rpm	25	330485
125 x 22	60	⊗ 30	12200 rpm	25	330487
125 x 22	80	⊗ 30	12200 rpm	25	330490
125 x 22	120	⊗ 30	12200 rpm	25	330491
180 x 22	24	⊗ 30	8500 rpm	25	330489
180 x 22	36	⊗ 30	8500 rpm	25	330492
180 x 22	60	⊗ 30	8500 rpm	25	330495

Abrasive fibre disc, multibond

## FS 966 ACT



### Properties

Bonding agent	Resin
Grain	Ceramic Al. oxide
Coating	Close

### Applications:

Stainless steel	●
-----------------	---



**Advantages:** Micro-crystalline self-sharpening effect - High aggressiveness throughout the service life - Outstanding grit adhesion - Long service life, especially suitable for heavy duty applications - Increase in performance due to low temperatures - Multibond prevents heat tinting

Available grits:

16	24	30	36	40	50	60	80	100	120	150	180	220	240	280	320	360	400	500	600	800	1000	1200	1500	2000	2500	3000
----	----	----	----	----	----	----	----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	------	------	------	------	------	------

Diameter x Hole in mm	Grit	Hole pattern	Max. RPM	Packing unit/pcs.	Cat. number
100 x 16	36	⊙ 10	15300 rpm	25	318725
100 x 16	60	⊙ 10	15300 rpm	25	318726
100 x 16	80	⊙ 10	15300 rpm	25	318727
100 x 16	120	⊙ 10	15300 rpm	25	324236
115 x 22	36	⊗ 30	13300 rpm	25	316490

Backing pads see page 46-47 / Dispenser see page 47





# Fibre discs / Backing pads

Coated abrasives

## ► Continuation of FS 966 ACT, Abrasive fibre disc, multibond

Diameter x Hole in mm	Grit	Hole pattern	Max. RPM	Packing unit/pcs.	Cat. number
115 x 22	60	⊗ 30	13300 rpm	25	316492
115 x 22	80	⊗ 30	13300 rpm	25	316493
125 x 22	24	⊗ 30	12200 rpm	25	318305
125 x 22	36	⊗ 30	12200 rpm	25	316494
125 x 22	60	⊗ 30	12200 rpm	25	316496
125 x 22	80	⊗ 30	12200 rpm	25	316497
125 x 22	120	⊗ 30	12200 rpm	25	324239
180 x 22	36	⊗ 30	8500 rpm	25	316498
180 x 22	60	⊗ 30	8500 rpm	25	316501
180 x 22	80	⊗ 30	8500 rpm	25	316502

Backing pad, plain/flexible

## ST 358



**Advantages:** Medium-hard backing pad allows good adaptation to the workpiece - For universal use, especially for surface and finish grinding (grit 50 and finer) - High temperature resistance

Diameter in mm	Thread/Shaft	Suitable for	Max. operating speed	Max. RPM	Packing unit/pcs.	Cat. number
100	thread M10	Diameter 100 x 16	80 m/s	15300 rpm	1	305190
100	thread M14	Diameter 100 x 22	80 m/s	15300 rpm	1	2774
115	thread M14	Diameter 115 x 22	80 m/s	13300 rpm	1	14838
125	thread M14	Diameter 125 x 22	80 m/s	12200 rpm	1	14835
180	thread M14	Diameter 180 x 22	80 m/s	8500 rpm	1	14840

Backing pads see page 46-47 / Dispenser see page 47

Backing pad, ribbed/hard

## ST 358 A



**Advantages:** For rough grinding - Cool grinding - Increased aggressiveness due to hard, ribbed abrasive surface - High temperature resistance and stability

Diameter in mm	Thread/Shaft	Suitable for	Max. operating speed	Max. RPM	Packing unit/pcs.	Cat. number
100	thread M10	Diameter 100 x 16	80 m/s	15300 rpm	1	329045
115	thread M14	Diameter 115 x 22	80 m/s	13300 rpm	1	126346
125	thread M14	Diameter 125 x 22	80 m/s	12200 rpm	1	126347
180	thread M14	Diameter 180 x 22	80 m/s	8500 rpm	1	126348

Dispenser for fibre discs

## FS 555



**Advantages:** Easy stocking and removal of up to 100 fiber discs with diameter of 115 to 180 mm - Orderly and accessible storage at the workplace

**Fibre discs not included**

Width x Length x Height in mm	Packing unit/pcs.	Cat. number
170 x 140 x 196	1	316463

# Sheets with paper backing

Coated abrasives

Abrasive paper, waterproof

## PS 11 C



### Properties

Bonding agent	Resin
Grain	SiC
Coating	Close
Backing	C-paper

### Applications:

Paint/Varnish/Filler	●
Plastic	●
Glass/Stone	◐
Metals	◐



**Advantages:** Special product for auto repair and painting - For hard and tough surfaces - Good adaptation and high stability - Wet and dry sanding

Available grits:

16	24	30	36	40	50	60	80	100	120	150	180	220	240	280	320	360	400	500	600	800	1000	1200	1500	2000	2500	3000
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Width x Length in mm	Grit	Packing unit/pcs.	Cat. number
230 x 280	60	50	2022
230 x 280	80	50	2023
230 x 280	100	50	320668
230 x 280	120	50	2116
230 x 280	150	50	320670
230 x 280	180	50	2012

Abrasive paper, waterproof

## PS 11 A



### Properties

Bonding agent	Resin
Grain	SiC
Coating	Close
Backing	A-paper

### Applications:

Paint/Varnish/Filler	●
Plastic	●
Glass/Stone	◐
Metals	◐



**Advantages:** Special product for auto repair and painting - For hard and tough surfaces - Good adaptation and high stability - Wet and dry sanding

Available grits:

16	24	30	36	40	50	60	80	100	120	150	180	220	240	280	320	360	400	500	600	800	1000	1200	1500	2000	2500	3000
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Width x Length in mm	Grit	Packing unit/pcs.	Cat. number
230 x 280	220	50	2002
230 x 280	240	50	2003
230 x 280	280	50	2004
230 x 280	320	50	2005
230 x 280	360	50	2006
230 x 280	400	50	2007
230 x 280	600	50	2009

Other grits and sizes available on request.



# Sheets with paper backing

Coated abrasives



## ►► Continuation of PS 11 A, Abrasive paper, waterproof

Width x Length in mm	Grit	Packing unit/pcs.	Cat. number
230 x 280	800	50	2010
230 x 280	1000	50	11892
230 x 280	1200	50	6616
230 x 280	1500	50	186794
230 x 280	2000	50	186795

Abrasive paper

### PS 33 C



#### Properties

Bonding agent	Resin
Grain	Aluminium oxide
Coating	Semi-open
Backing	C-paper

#### Applications:

Paint/Varnish/Filler	●
Wood	●
Plastic	⓪



**Advantages:** High removal rate - For diverse applications

Available grits:

16	24	30	36	40	50	60	80	100	120	150	180	220	240	280	320	360	400	500	600	800	1000	1200	1500	2000	2500	3000
----	----	----	----	----	----	----	----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	------	------	------	------	------	------

Width x Length in mm	Grit	Packing unit/pcs.	Cat. number
230 x 280	40	50	147849
230 x 280	60	50	147850
230 x 280	80	50	147851
230 x 280	100	50	320687
230 x 280	120	50	147852

Other grits and sizes available on request.



# Sheets / strips with paper backing

Coated abrasives

Abrasive paper

## PS 33 B



### Properties

Bonding agent	Resin
Grain	Aluminium oxide
Coating	Semi-open
Backing	B-paper

### Applications:

Paint/Varnish/Filler	●
Wood	●
Plastic	○

**Advantages:** High removal rate - For diverse applications

Available grits:

16	24	30	36	40	50	60	80	100	120	150	180	220	240	280	320	360	400	500	600	800	1000	1200	1500	2000	2500	3000
----	----	----	----	----	----	----	----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	------	------	------	------	------	------

Width x Length in mm	Grit	Packing unit/pcs.	Cat. number
230 x 280	150	50	149528
230 x 280	180	50	147853
230 x 280	220	50	327156
230 x 280	240	50	147854
230 x 280	280	50	327157
230 x 280	320	50	149530
230 x 280	400	50	148971
230 x 280	600	50	170668

Abrasive paper, self-fastening

## PS 33 CK



### Properties

Bonding agent	Resin
Grain	Aluminium oxide
Coating	Semi-open
Backing	C-paper

### Applications:

Paint/Varnish/Filler	●
Wood	●
Plastic	○

**Advantages:** Improved abrasive and stock removal performance thanks to special heat-tempered aluminium oxide abrasive grain - Reduced clogging thanks to sanding active fillers in the size coat and the semi-open coating - Outstanding flexibility paired with good stability and tear resistance thanks to latex impregnated paper backing

Available grits:

16	24	30	36	40	50	60	80	100	120	150	180	220	240	280	320	360	400	500	600	800	1000	1200	1500	2000	2500	3000
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Width x Length in mm	Grit	Hole pattern	Packing unit/pcs.	Cat. number
115 x 230	80	GL 15	100	146968
115 x 230	120	GL 15	100	147182

Other grits and sizes available on request.

# Strips with paper backing, self-fastening

Coated abrasives



Abrasive paper, self-fastening

## PS 33 BK



### Properties

Bonding agent	Resin
Grain	Aluminium oxide
Coating	Semi-open
Backing	B-paper

### Applications:

Paint/Varnish/Filler	●
Wood	●
Plastic	○



**Advantages:** Improved abrasive and stock removal performance thanks to special heat-tempered aluminium oxide abrasive grain - Reduced clogging thanks to sanding active fillers in the size coat and the semi-open coating - Outstanding flexibility paired with good stability and tear resistance thanks to latex impregnated paper backing

Available grits:

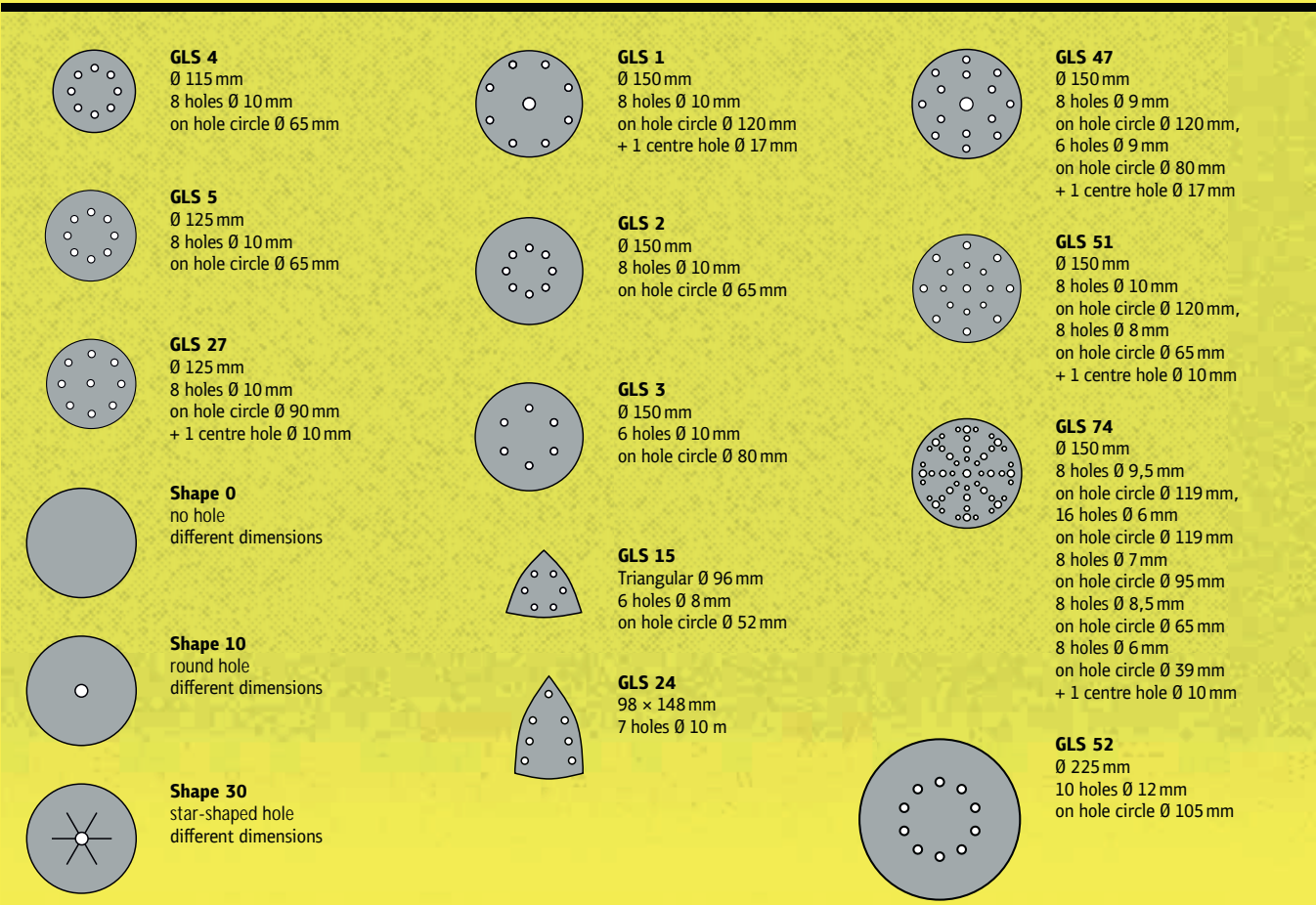
16	24	30	36	40	50	60	80	100	120	150	180	220	240	280	320	360	400	500	600	800	1000	1200	1500	2000	2500	3000
----	----	----	----	----	----	----	----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	------	------	------	------	------	------

Width x Length in mm	Grit	Hole pattern	Packing unit/pcs.	Cat. number
115 x 230	180	GL 15	100	147183
115 x 230	240	GL 15	100	147184
115 x 230	320	GL 15	100	147185

Other grits and sizes available on request.

Hole patterns for discs

Klingspor offers a wide range of products with hole patterns for dust extraction.  
You will find the available hole patterns marked in the table below.  
The chart on the following product pages shows the most popular types of machines and the required hole pattern.



Other hole patterns available on request.

Minimum order quantities for made to order items

Type	Ø [mm]	Minimum order quantities
AN 400	up to 50 mm	5,000 pieces
CS 310 X	up to 90 mm	2,500 pieces
CS 321 X	up to 125 mm	1,000 pieces
CS 411 XK	up to 200 mm	500 pieces
FP 73 WK	up to 400 mm	200 pieces
PS 11 C	up to 600 mm	100 pieces
PS 19 EK	over 600 mm	25 pieces
PS 21 FK		
PS 22 F ACT		
PS 22 K		
PS 33 BK/CK		
PS 61 FK		
PS 73 BWK/CWK		
PS 77 CK		
FP 77 K		

Maximum disc diameter

Ø 670 mm	Ø 770 mm	Ø 1,100 mm
PS 21 FK	PS 61 FK	PS 11 C
PS 22 K		PS 19 EK
		PS 33 BK/CK
		FP 73 WK
		PS 73 BWK/CWK
		AN 400
		CS 411 XK
		CS 310 X
		CS 321 X
		PS 77 CK
		FP 77 K



We reserve the right to over-deliver or under-deliver made to order items.

### Orbital and delta sanders

Manufacturer	Type	Size in mm	Hole pattern
AEG power tools	Delta DSE 260	105 × 105 × 105	GLS 17
	FS 2 D	98 × 148	GLS 24
	EX 400, EXE 400, EX 450, EXE 460-125, EX 125 E, EX 125 ES	125	GLS 5
	EXE 450	convertible to 125	GLS 5
	EXE 450	150	GLS 2 (7)
	EXE 460 - 150, ROS 150 E, EX 150 E	150	GLS 3
Atlas Copco	EX/E 450	150	GLS 7
	LST 21 R350, LST 22 R350, LST 22 R325, LST 20 R350	90	GLS 41
	VS 11 D	98 × 148	GLS 24
	LST 30 H90-11	115	plain
	LST 20 R525, LST 20 R550	125	plain
	LST 21 R525, LST 21 R550, LST 22 R525, LST 22 R550	125	GLS 5
	TXE 150	convertible to 125	GLS 5
	LST 20 R625, LST 20 R650, LST 30 H090-15, LST 30 S090-15	150	plain
	ROS 150 E, LST 21 R625, LST 21 R650, LST 22 R625, LST 22 R650, LST31 H90-15, LST31 S90-15, LST32 H090-15, LST32 S090-15, LST 22 R625-9, G2438-6.5N Pro, G2438-6.5I Pro, G2438-6.3I Pro, G2438-6.10I Pro, G2438-6.5C Pro, G2438-6.3N Pro, G2438-6.3C Pro, G2438-6.10N Pro, G2438-6.10C Pro, G2438-10 self-fastening 6 Pro, LST 22 R650-9	150	GLS 3
	TXE 150	150	GLS 7
Black & Decker	VP510	96 × 96 × 96	GLS 15
	KA 510	94 × 94 × 94	GLS 15
	KA 165 GT (mouse)		GLS 25
	KA 230 E		GLS 34
Bosch	BD190, BD190 E, BD190S, BD190D, XTA90EK, KS 191 EK, KA 198, KA 190, KA 190 E, KA 190 S, KA 198GT, KA220, KA220G, KA191EK	125	GLS 5
	Delta GDA 280 E, Delta PDA 100, PDA 10-92, Delta PDA 120 E, Delta PDA 240 E, PDA 180, PDA 180 E	96 × 96 × 96	GLS 15
	PEX 11 A, PEX 115, PEX 11 AE	115	GLS 4
	PEX 300 A/AE, GEX 125-150 AVE Professional, PEX 400 AE, PEX 12 A, PEX 12 AE, PEX 125 A-1, PEX 125 AE, PEX 270 A/AE, GEX 125 A, GEX 125 AC, GEX 125-1 AE, PEX 220 A	125	GLS 5
	PEX 15 AE, GEX 150 AE, GEX 150 AC/E, GEX 150 Turbo, PEX 420 AE	150	GLS 3
DeWalt	ES 55 E, DW423, D26453	125	GLS 5
	ES 56 E, ES 56 EK, DW443, D 26410	150	GLS 3
Einhell	DE-G 200 E	94 × 94 × 94	GLS 15
	EX 115	115	GLS 4
	EX-G 125 E, BES 125, EX-G 125, BT-RS 420 E, BES 125 E, BRS 380 E	125	GLS 5
	LL 107 VEA	115	plain
Fein	MSf 636-1, M 10000-5, XS 712	125	GLS 5
	MSf 636-1	150	GLS 26
	MSf 649-2 a/b, M 10000-6	150	GLS 2 (7)
	ROT 14-200 E	150	GLS 2
	X 1107 VE	150	GLS 3
Felisatti	ROT 14-200 E	200	GLS 9
	TP 521/AS, TP 521/E, TP 522 AS/CE, RGF 150/600 E	150	GLS 3

Manufacturer	Type	Size in mm	Hole pattern
Festool	RO 90 DX FEQ-Plus	90	GLS 41
	DS 400, DTS 400	98 × 148	GLS 24
	DX 93	94 × 94 × 94	GLS 16
	ES 125, ES 125 E, ES 125 E-PLUS, ES 125 PLUS	125	GLS 5
	ES 125 EQ-Plus; ES 125 EQ, ES 125 Q-Plus, ES 125 Q, ETS 125, LEX 2 125/3, LEX 1 125/7, LEX 3 125/3, LEX 3 125/5	125	GLS 27
	RO 125 FEQ-Plus	125	GLS 27
	ET 2 E	150	GLS 2
	ET 2 E - Plus, RO 150, RO 150 E, RO 2 E-Plus, LEX 3 150/3, LEX 150, ETS 150/3, ETS 150/5, WTS 150/7 E, WTS 150/7 E-Plus, ETS 150/5 EQ, ETS 150/S EQ-E, ETS 150/5 EQ-Plus	150	GLS 1
	Multi-Jetstream (8+8+1)	150	GLS 51
	LHS 225 EQ-Plus	225	GLS 38
Flex	OD 100-2, ODE 100-2	98 × 148	GLS 24
	XS 712, XS 713	125	GLS 5
	X 1107 VE, XS 1107 VE	150	GLS 3
	ORE 125-2	125	GLS 27
	GE 5, GE 5 R, GE 7, GSE 5 R, WST 700VV, WST 700 VV Plus	225	GLS 52
Hilti	GE 7, WST 700 VV Plus	225	GLS 55
	GE 7, WST 700 VV Plus	285	GLS 60
Hitachi	WFE 150, WFE 380, WFE 450 E	150	GLS 3
	FSV 13 Y, TSV 13 Y, SV 13 YA	125	GLS 5
HOLZ HER	SAY 150 A	150	GLS 3
	2445	150	GLS 7 (1)
Kress	CDS 6425, CDS 6420, CDS 6422 E	105	GLS 17
	CPS 6115-1, 6115 E	115	GLS 4
	CPS 6125-1, CPS 6125 E, CPS 6125 E SET, HEX 1385 E, HEX 6385 E, 300 EXE	125	GLS 5
	900 MPS, 900 HEX /2	150	GLS 3
	UT 150 E, UX 150 E	150	GLS 1, 3, 47
Mafell	BO 4561, BO 4565	96 × 96 × 96	GLS 15
	BO 5000, BO 5010, BO 5041, BO 5031 K, BO 5021, BO 5021 K, BO 5041 K	125	GLS 5
Makita	BO 6030, BO 6040 J	150	GLS 1
	DS E 130, DS E 170, DS E 180	96 × 96 × 96	GLS 15
Metabo	DSE 300, DSE 300 Intec, DSE 280 INTEC	94 × 94 × 94	GLS 15
	SXE 400	80	GLS 13
	SX E 125, FSX 200 INTEC, SXE 425 TURBOTECH, SX E 425, SXE 325 INTEC	125	GLS 5
	SX E 425 XL, SX E 450 Duo, SXE 450 TURBOTECH,	150	GLS 3
Milwaukee	PDS 13, FS 2 D	98 × 148	GLS 24
	PRS 125 E	125	GLS 5
Peugeot	ROS 150 E	150	GLS 3
	PAE 115	115	GLS 4
Pro Tool	PRX 150 E	150	GLS 3
	ESP 150 E	150	GLS 3
Ryobi	ERO 2412V, CRO 180M, ROS 300 A, CRO 180 MHG	125	GLS 5
	7110 AA, 7115 AA	96 × 96 × 96	GLS 15
SKIL	7415	115	GLS 4
	7400, 7425, 7430, 7435, 7440 AA, 7460 AA, 7470 MA	125	GLS 5
Stayer	RO 150 E, LRT 150	150	GLS 3
	LRE 84 H, RTE84H	125	GLS 5
Wegoma	RX 91 C, RT188N, RTE46L, RTE146L	150	GLS 3

Please contact Klingspor if you cannot find the machine used by you on this list. We will be pleased to assist you further. If the product you require is not in stock, we will manufacture it for you subject to a minimum order quantity.



# Discs with paper backing, self-fastening

Coated abrasives

Abrasive paper, self-fastening

## PS 21 FK



### Properties

Bonding agent	Resin
Grain	Zirconia alumina
Coating	Close
Backing	F-paper

### Applications:

Steel	●
Stainless steel	●
Metals	●

**Advantages:** Aggressive abrasive behavior due to self-sharpening zirconia alumina - Optimal recipe for rough grinding and finish grinding of stainless steel - Long service life

Available grits:

16	24	30	36	40	50	60	80	100	120	150	180	220	240	280	320	360	400	500	600	800	1000	1200	1500	2000	2500	3000
----	----	----	----	----	----	----	----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	------	------	------	------	------	------

Diameter in mm	Grit	Hole pattern	Packing unit/pcs.	Cat. number
125	40	○ 0	50	246857
125	60	○ 0	50	237780
125	80	○ 0	50	237781
125	120	○ 0	50	237782
125	240	○ 0	50	237785
125	320	○ 0	50	237786
150	40	○ 0	50	230312
150	60	○ 0	50	230313
150	80	○ 0	50	230314
150	120	○ 0	50	246488
150	150	○ 0	50	239244
150	180	○ 0	50	252774
150	240	○ 0	50	251509
180	80	○ 0	50	256056

Other grits and sizes available on request.

# Discs with paper backing, self-fastening

Coated abrasives



Abrasive paper, self-fastening

## PS 22 K



### Properties

Bonding agent	Resin
Grain	Aluminium oxide
Coating	Semi-open
Backing	E-paper

### Applications:

Wood	●
Metals	●
Stainless steel	⦿
Paint/Varnish/Filler	⦿

Plastic



**Advantages:** Universal abrasive disc for metalworking and woodworking - Uniform surface scratch pattern - Available in many grit sizes and dimensions

Available grits:

16	24	30	36	40	50	60	80	100	120	150	180	220	240	280	320	360	400	500	600	800	1000	1200	1500	2000	2500	3000
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Diameter in mm	Grit	Hole pattern	Packing unit/pcs.	Cat. number
125	40	○ 0	50	2294
125	60	○ 0	50	2295
125	80	○ 0	50	6774
125	120	○ 0	50	6775
125	180	○ 0	50	62107
125	240	○ 0	50	91922
125	320	○ 0	50	93284
125	400	○ 0	50	130114
125	40	⊗ GLS 5	50	89486
125	60	⊗ GLS 5	50	89488
125	80	⊗ GLS 5	50	89489
125	100	⊗ GLS 5	50	89491
125	120	⊗ GLS 5	50	89493
125	150	⊗ GLS 5	50	89494
125	180	⊗ GLS 5	50	89495
125	240	⊗ GLS 5	50	92753
125	40	⊗ GLS 27	50	260795
125	60	⊗ GLS 27	50	260796
125	80	⊗ GLS 27	50	260797
125	120	⊗ GLS 27	50	260799
125	180	⊗ GLS 27	50	260801
150	40	○ 0	50	20207
150	60	○ 0	50	6649
150	80	○ 0	50	6936
150	120	○ 0	50	6937
150	150	○ 0	50	71140
150	180	○ 0	50	4022
150	240	○ 0	50	91605
150	320	○ 0	50	91721
180	40	○ 0	50	2476
180	60	○ 0	50	2477
180	80	○ 0	50	6914
180	120	○ 0	50	6915
305	80	○ 0	50	201390

Other grits and sizes available on request.

## Discs with paper backing, self-fastening

Coated abrasives

Abrasive paper, self-fastening

### PS 33 CK

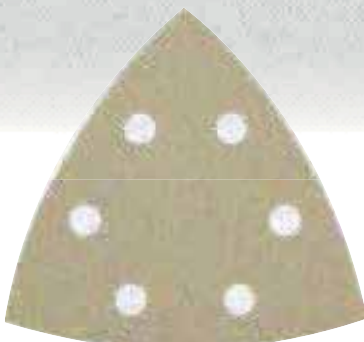


#### Properties

Bonding agent	Resin
Grain	Aluminium oxide
Coating	Semi-open
Backing	C-paper

#### Applications:

Paint/Varnish/Filler	●
Wood	●
Plastic	⦿



**Advantages:** Improved abrasive and stock removal performance thanks to special heat-tempered aluminium oxide abrasive grain - Reduced clogging thanks to sanding active fillers in the size coat and the semi-open coating - Outstanding flexibility paired with good stability and tear resistance thanks to latex impregnated paper backing

Available grits:

16	24	30	36	40	50	60	80	100	120	150	180	220	240	280	320	360	400	500	600	800	1000	1200	1500	2000	2500	3000
----	----	----	----	----	----	----	----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	------	------	------	------	------	------

Diameter in mm	Grit	Hole pattern	Packing unit/pcs.	Cat. number
96	60	△ GLS 15	100	147164
96	80	△ GLS 15	100	147165
96	120	△ GLS 15	100	148195

Abrasive paper, self-fastening

### PS 33 CK



#### Properties

Bonding agent	Resin
Grain	Aluminium oxide
Coating	Semi-open
Backing	C-paper

#### Applications:

Paint/Varnish/Filler	●
Wood	●
Plastic	⦿



**Advantages:** Improved abrasive and stock removal performance thanks to special heat-tempered aluminium oxide abrasive grain - Reduced clogging thanks to sanding active fillers in the size coat and the semi-open coating - Outstanding flexibility paired with good stability and tear resistance thanks to latex impregnated paper backing

Available grits:

16	24	30	36	40	50	60	80	100	120	150	180	220	240	280	320	360	400	500	600	800	1000	1200	1500	2000	2500	3000
----	----	----	----	----	----	----	----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	------	------	------	------	------	------

Width x Length in mm	Grit	Hole pattern	Packing unit/pcs.	Cat. number
98 x 148	60	△ GLS 24	100	215473
98 x 148	80	△ GLS 24	100	215474
98 x 148	120	△ GLS 24	100	215476

Other grits and sizes available on request.

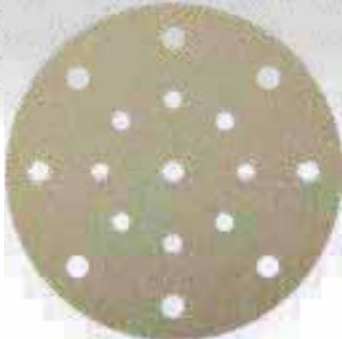
# Discs with paper backing, self-fastening

Coated abrasives



Abrasive paper, self-fastening

## PS 33 CK



### Properties

Bonding agent	Resin
Grain	Aluminium oxide
Coating	Semi-open
Backing	C-paper

### Applications:

Paint/Varnish/Filler	●
Wood	●
Plastic	○

**Advantages:** Improved abrasive and stock removal performance thanks to special heat-tempered aluminium oxide abrasive grain - Reduced clogging thanks to sanding active fillers in the size coat and the semi-open coating - Outstanding flexibility paired with good stability and tear resistance thanks to latex impregnated paper backing

### Available grits:

16	24	30	36	40	50	60	80	100	120	150	180	220	240	280	320	360	400	500	600	800	1000	1200	1500	2000	2500	3000
----	----	----	----	----	----	----	----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	------	------	------	------	------	------

Diameter in mm	Grit	Hole pattern	Packing unit/pcs.	Cat. number
125	40	○ 0	100	154113
125	60	○ 0	100	147604
125	80	○ 0	100	149055
125	120	○ 0	100	150433
125	40	⊗ GLS 5	100	146954
125	60	⊗ GLS 5	100	147642
125	80	⊗ GLS 5	100	147643
125	100	⊗ GLS 5	100	147977
125	120	⊗ GLS 5	100	147170
150	40	○ 0	100	147922
150	60	○ 0	100	147107
150	80	○ 0	100	146739
150	100	○ 0	100	147106
150	120	○ 0	100	146740
150	40	⊗ GLS 47	100	306836
150	60	⊗ GLS 47	100	306837
150	80	⊗ GLS 47	100	305758
150	100	⊗ GLS 47	100	306838
150	120	⊗ GLS 47	100	305759

Other grits and sizes available on request.

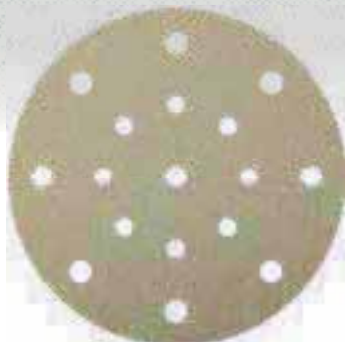


# Discs with paper backing, self-fastening

Coated abrasives

Abrasive paper, self-fastening

## PS 33 BK



### Properties

Bonding agent	Resin
Grain	Aluminium oxide
Coating	Semi-open
Backing	B-paper

### Applications:

Paint/Varnish/Filler	●
Wood	●
Plastic	●

**Advantages:** Improved abrasive and stock removal performance thanks to special heat-tempered aluminium oxide abrasive grain - Reduced clogging thanks to sanding active fillers in the size coat and the semi-open coating - Outstanding flexibility paired with good stability and tear resistance thanks to latex impregnated paper backing

### Available grits:

16	24	30	36	40	50	60	80	100	120	150	180	220	240	280	320	360	400	500	600	800	1000	1200	1500	2000	2500	3000
----	----	----	----	----	----	----	----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	------	------	------	------	------	------

Diameter in mm	Grit	Hole pattern	Packing unit/pcs.	Cat. number
125	180	○ 0	100	150435
125	240	○ 0	100	150460
125	150	⊗ GLS 5	100	150760
125	180	⊗ GLS 5	100	147837
125	240	⊗ GLS 5	100	147838
125	320	⊗ GLS 5	100	147839
125	400	⊗ GLS 5	100	147644
150	180	○ 0	100	146958
150	240	○ 0	100	146959
150	320	○ 0	100	146716
150	400	○ 0	100	147108
150	150	⊗ GLS 47	100	306839
150	180	⊗ GLS 47	100	306840
150	240	⊗ GLS 47	100	306842
150	320	⊗ GLS 47	100	306844
150	400	⊗ GLS 47	100	306846
150	500	⊗ GLS 47	100	306847
150	600	⊗ GLS 47	100	306848
180	180	○ 0	100	262468
180	240	○ 0	100	262469
205	180	⊗ GLS 20	100	252721
205	240	⊗ GLS 20	100	245896

Other grits and sizes available on request.

# Discs with film / paper backing, self-fastening

Coated abrasives



Abrasive film, active coated, self fastening

## FP 73 WK



### Properties

Bonding agent	Resin
Grain	Aluminium oxide
Coating	Semi-open
Backing	Film

### Applications:

Paint/Varnish/Filler	●
Plastic	○

**Advantages:** Special product with highly tear-resistant film backing for use on paint, varnish and fillers - Very good adaptation of the discs with excellent grit adhesion also in the edge area - Substantially reduced clogging and significantly longer service life

Available grits:

16	24	30	36	40	50	60	80	100	120	150	180	220	240	280	320	360	400	500	600	800	1000	1200	1500	2000	2500	3000
----	----	----	----	----	----	----	----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	------	------	------	------	------	------

Diameter in mm	Grit	Hole pattern	Packing unit/pcs.	Cat. number
150	80	● GLS 47	100	320641
150	120	● GLS 47	100	320643
150	180	● GLS 47	100	320725
150	320	● GLS 47	100	320727

Abrasive paper, actively coated, self-fastening

## PS 73 BWK



### Properties

Bonding agent	Resin
Grain	Aluminium oxide
Coating	Semi-open
Backing	B-paper

### Applications:

Paint/Varnish/Filler	●
Plastic	○

**Advantages:** High-quality product for use on varnish, paint and filler - High removal rate - Substantially reduced clogging and significantly longer service life due to additional special coating

Available grits:

16	24	30	36	40	50	60	80	100	120	150	180	220	240	280	320	360	400	500	600	800	1000	1200	1500	2000	2500	3000
----	----	----	----	----	----	----	----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	------	------	------	------	------	------

Diameter in mm	Grit	Hole pattern	Packing unit/pcs.	Cat. number
150	150	○ 0	100	301236
150	180	○ 0	100	301237
150	240	○ 0	100	301239
150	320	○ 0	100	301240
150	400	○ 0	100	301241
150	500	○ 0	100	301937
150	600	○ 0	100	306614
150	800	○ 0	100	301886
150	1200	○ 0	100	306625

Other grits and sizes available on request.



# Discs with paper backing, self-fastening / Abrasive screen

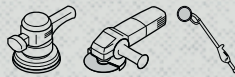
Coated abrasives

## ► Continuation of PS 73 BWK, Abrasive paper, actively coated, self-fastening

Diameter in mm	Grit	Hole pattern	Packing unit/pcs.	Cat. number
150	180	● GLS 47	100	301856
150	240	● GLS 47	100	301858
150	320	● GLS 47	100	301859
150	800	● GLS 47	100	307051
150	1200	● GLS 47	100	307053
205	320	● GLS 20	100	316227

Abrasive screen, self-fastening, waterproof

### AN 400



#### Properties

Bonding agent	Resin
Grain	Aluminium oxide
Backing	Polyester screen

#### Applications:

Paint/Varnish/Filler	●	Composite materials	●
Gel coats	●	Wood	●
Plaster	●	Wood-based materials	●
Plasterboard walls	●		



**Advantages:** Effective and full-surface dust extraction thanks to open grid structure - Dust-free grinding extends the service life of the abrasive - At the same time, improved health and safety thanks to reduced dust formation at the work station - Independent of existing extraction hole patterns - Waterproof

#### Available grits:

16	24	30	36	40	50	60	80	100	120	150	180	220	240	280	320	360	400	500	600	800	1000	1200	1500	2000	2500	3000
----	----	----	----	----	----	----	----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	------	------	------	------	------	------

Diameter in mm	Grit	Hole pattern	Packing unit/pcs.	Cat. number
150	80	● Screen	50	337886
150	120	● Screen	50	337885
150	180	● Screen	50	337883
150	240	● Screen	50	337888
150	320	● Screen	50	337876
150	400	● Screen	50	337877
150	600	● Screen	50	340193
150	800	● Screen	50	340195

Other grits and sizes available on request.

Self-fastening multihole backing pad for random orbital sanders

## HST 545



**Advantages:** Very good adhesion for all velour-coated discs - Suitable for all standard hole patterns - Optimal running behaviour - Improved dust extraction due to multi-hole cover plate - Available in Medium and Soft - Adapter M8 and 5/16" included

Diameter in mm	Thread/Shaft	Density	Max. RPM	Packing unit/pcs.	Cat. number
150	thread M8/ 5/16"	medium	10200 rpm	1	384003

Other grits and sizes available on request.



## Protection pad / Hand block

Protection pad, self-fastening

### PP 555 Retail packs



**Advantages:** Improvement of adhesion and protection of the backing pad on random orbital sanders

Diameter in mm	Suitable for	Packing unit/pcs.	Cat. number
150	Random orbital sander	2	358148
225	Drywall sander	2	370662

Hand block, self fastening

### HBD 150



**NEW** !



**Advantages:** Very suitable for surface and edge grinding - Fatigue-proof hand sanding due to ergonomic form - For self-fastening discs in diameter 150 mm - Self-fastening

Diameter in mm	Packing unit/pcs.	Cat. number
150	1	387044

Other grits and sizes available on request.

Self-fastening support

## CS 396 Y



### Properties

Engaging elements	Mushroom heads
Thickness	1,5 mm
Temperature range	-30° to +80°



**Advantages:** Can be cut to size easily - Simple and safe fixing on smooth and even surfaces - Allows a quick change of the abrasive

Diameter in mm	Hole pattern	Packing unit/pcs.	Cat. number
125	○ 0	1	116594
150	○ 0	1	78325
180	○ 0	1	109864

Backing pad for self-fastening discs

## HST 359



**Advantages:** Good adhesion for all velour-coated abrasive discs - For medium-duty rough grinding and polishing

Diameter in mm	Thread/Shaft	Density	Max. RPM	Packing unit/pcs.	Cat. number
125	thread M14	hard	12200 rpm	1	70434
150	thread M14	soft	12000 rpm	1	327346
150	thread M14	hard	12000 rpm	1	70436
180	thread M14	hard	8500 rpm	1	73066

Other grits and sizes available on request.

## Orbital sander / Backing pad

Orbital Sander

### SPARTAN

**NEW**



**Advantages:** Adjustable for nearly all sanding jobs - Sanding of wood, metals, and polymer surfaces - The ergonomic design allows for a comfortable use

Diameter in mm	Description	Packing unit/pcs.	Cat. number
150	Non-Vacuum	1	355717
150	Vacuum-Ready	1	368609

Backing pad

### HST 200

**NEW**



**Advantages:** Polyurethane backing pads for Spartan Kling-on

Diameter in mm	Adaptor	Description	Suitable for	Density	Packing unit/pcs.	Cat. number
150	SPARTAN	Multi-Hole	Spartan Kling-on	medium	1	372017
150	SPARTAN	No-Hole	Spartan Kling-on	medium	1	372018

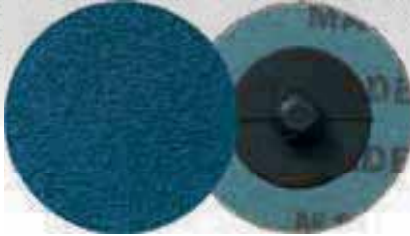
# Quick Change Discs

Quick Roll Connect



Quick Change Disc

## QRC 411



### Properties

Bonding agent	Resin
Grain	Zirconia alumina
Coating	Close

### Applications:

Stainless steel	●
Metals	●

**Advantages:** Aggressive abrasive behavior due to self-sharpening zirconia alumina - High removal rate on steel and stainless steel

Available grits:

16	24	30	36	40	50	60	80	100	120	150	180	220	240	280	320	360	400	500	600	800	1000	1200	1500	2000	2500	3000
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Diameter in mm	Grit	Max. RPM	Packing unit/pcs.	Cat. number
50	36	30000 rpm	100	295306
50	60	30000 rpm	100	295309
50	80	30000 rpm	100	295310
50	120	30000 rpm	100	295311
76	36	20000 rpm	50	295318
76	60	20000 rpm	50	295321
76	80	20000 rpm	50	295322
76	120	20000 rpm	50	295323

Quick Change Disc

## QRC 409



### Properties

Bonding agent	Resin
Grain	Zirconia alumina
Coating	Close

### Applications:

Stainless steel	●
Metals	●

**Advantages:** High removal rate on stainless steel - Multibond allows cool grinding on stainless steel - Minimal clogging on aluminium

Available grits:

16	24	30	36	40	50	60	80	100	120	150	180	220	240	280	320	360	400	500	600	800	1000	1200	1500	2000	2500	3000
----	----	----	----	----	----	----	----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	------	------	------	------	------	------

Diameter in mm	Grit	Max. RPM	Packing unit/pcs.	Cat. number
50	36	30000 rpm	100	295340
50	60	30000 rpm	100	295343
50	80	30000 rpm	100	295344
50	120	30000 rpm	100	295345

Other grits and sizes available on request. Convenient kits of these products are available in our retail section.



# Quick Change Discs

## Quick Roll Connect

### ►► Continuation of QRC 409, Quick Change Disc

Diameter in mm	Grit	Max. RPM	Packing unit/pcs.	Cat. number
76	36	20000 rpm	50	295351
76	60	20000 rpm	50	295354
76	80	20000 rpm	50	295355
76	120	20000 rpm	50	298976

Quick Change Disc

## QRC 912



#### Properties

Bonding agent	Resin
Grain	Ceramic Al. oxide
Coating	Close

#### Applications:

Stainless steel	●
High alloy steel	●



**Advantages:** Extremely high removal rate on stainless steel due to micro-crystalline and self-sharpening ceramicgrit - Continuously aggressive abrasive properties

### Available grits:

16	24	30	36	40	50	60	80	100	120	150	180	220	240	280	320	360	400	500	600	800	1000	1200	1500	2000	2500	3000
----	----	----	----	----	----	----	----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	------	------	------	------	------	------

Diameter in mm	Grit	Max. RPM	Packing unit/pcs.	Cat. number
50	36	30000 rpm	100	329771
50	60	30000 rpm	100	329772
50	80	30000 rpm	100	329773
76	36	20000 rpm	50	329804
76	60	20000 rpm	50	329805
76	80	20000 rpm	50	329806

Other grits and sizes available on request. Convenient kits of these products are available in our retail section.



Backing pad

## QRC 555



**Advantages:** For secure mounting of QRC discs - Optimized abrasive properties (aggressiveness, surface quality) due to two hardnesses - Easy differentiation of the hardnesses through coloured rings - Fixing spindle can be unscrewed, therefore the use on angle grinder or with adapter QCA 555 is possible via 1/4"-20 thread

Diameter in mm	Thread/Shaft	Density	Colour	Max. RPM	Packing unit/pcs.	Cat. number
50	Shaft 6 mm	medium	blue	30000 rpm	1	295428
50	Shaft 6 mm	firm	red	30000 rpm	1	295429
76	Shaft 6 mm	medium	blue	20000 rpm	1	295432
76	Shaft 6 mm	firm	red	20000 rpm	1	295433

Adapter for quick change disc backing pad

## QCA 555



**Advantages:** Quick Change Disc Adapter with M14 female thread and 1/4"-20 male thread - Allows use of quick change discs on a regular angle grinder

Width x Length in mm	Thread/Shaft	Max. operating speed	Max. RPM	Packing unit/pcs.	Cat. number
20 x 30	thread M14	80 m/s	75400 rpm	1	308693

Other grits and sizes available on request. Convenient kits of these products are available in our retail section.





# Abrasive flap wheels

## About the product

Developed by Klingspor over 40 years ago the abrasive flap wheel has found many practical and economical uses in surface finishing work. The Klingspor abrasive flap wheel comprises of high quality grinding flaps coated with aluminium oxide. The fan-shaped radial arrangement is firmly anchored by a resin core at the centre of the abrasive flap wheel. The structure of the abrasive flap wheel provides for very soft, comfortable grinding behaviour and adapts optimally to the contours of the workpiece. Klingspor abrasive flap wheels are especially suited for achieving a very smooth surface finish.

Klingspor has the perfect abrasive flap wheel to suit every surface, ranging from even to profiled surfaces, and is suited for nearly every material.

## Machines

Klingspor abrasive flap wheels can, depending on the dimensions, be used with the following machines:



Barrel grinder



Angle grinders



Flexible shafts



Drilling machines



Floor stand grinders



Satin finishing machine

## Minimum order quantities for made to order items

Product	Diameter in mm	Minimum order quantities
<b>SM 611</b>	100–165	20 pieces
<b>SM 611 W/H/S*</b>	200–300	10 pieces
<b>WSM 617*</b>	350–410	4 pieces

\* Available dimensions on request

Product	Diameter in mm	Minimum order quantities
	165	20 pieces
<b>FSR 618</b>	200–300	10 pieces
	350–400	4 pieces
	100–165	20 pieces
<b>MM 650</b>	200–300	10 pieces
	>300	4 pieces



We reserve the right to over-deliver or under-deliver made to order items.

Type	Material applications															Machine applications							
	Metal	Apparatus / container engineering	Precision engineering	Mould making	Fittings	Pipes	Profiled sections	Tools	Mountings	Cutlery	Wood	Contoured wood	Model construction	Profiled sections	Paint / varnish / fillers	Plastics	Flexible shafts	Drilling machines	Die grinders	Automatic grinders	Floor stand grinders	Angle grinders	Satin finishing machine
SM 611	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●		●	●	●		
SM 611 W	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●		●	●	●		
SM 611 H	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●		●	●	●		
SM 611 S	●	●				●																	●
MM 630	●	○		○		○	○				●	●	●	●	●	○	●	●	●				
MM 650	●	●	○	○	○	○	●		○		●	●	●	●	●	○	●		●		●		
WSM 617	●	●	●	●	●	●	●	●	●	●	○	○	●	●	●	●	○					●	
FSR 618	●	○	●	●	●	●	●	●	●	●	○	○	○	○	○	○	●			●	●		

● = main application ○ = possible application

# Abrasive flap wheels

## Applications guide

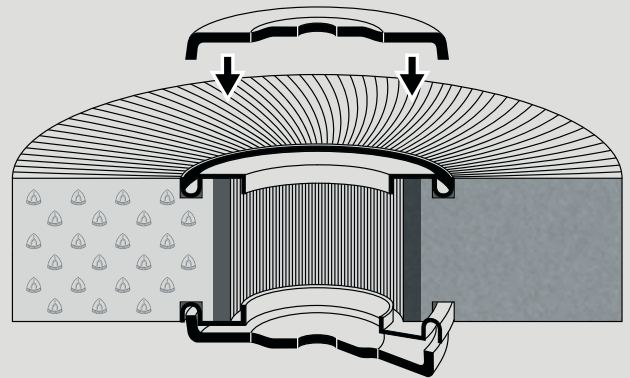
### Mounting

#### **Abrasive flap wheels SM 611, MM 650,**

These abrasive flap wheels are mounted to the machine spindle with two SMD 612 mounting plates.

#### **Correct mounting is important**

To ensure that the abrasive flap wheel runs smoothly, please check that the mounting plates are mounted evenly and fit tightly to the inner edge of the metal side mounting plate retaining groove. The mounting plates are equipped with mounting bore holes. Making bore hole adjustments to fit the respective shaft diameter easy and quick – by simply drilling the appropriate bore hole diameter. Please refer to product text SMD 612 for more information on maximum bore hole diameters.



**The special abrasive mop varieties listed below are designed in such a way that they can be fitted on top of the respective machine shafts without any additional SMD 612 mounting plates:**



#### **Abrasive flap wheel SM 611 H**

The abrasive flap wheel with a wooden core is preferred for work on floor stand grinders with cone-shaped mounting spindles. It can be mounted directly on the machine spindle without the use of a mounting plate. Abrasive mop wheel SM 611 H is equipped with a Ø 13 mm bore hole. Making bore hole adjustments to fit the respective shaft diameter easy and quick - by simply drilling the appropriate bore hole diameter.



#### **Abrasive flap wheel SM 611 W**

This abrasive flap wheel is equipped with a Ø 25.4 mm mounting bore hole and can be mounted to a machine without the use of a mounting plate.



#### **WSM 617**

The WSM 617, an abrasive flap wheel of the second generation with an integrated M14 or 5/8" inside thread, can be mounted and released again without the need for any additional tools.



#### **Abrasive flap drum SM 611 S**

These drums come as standard with a 19 mm receiving hole and keyway standard satin finishing machines that are equipped with the corresponding machine spindle.

# Abrasive flap wheels

## Applications guide



### The surface scratch pattern

The abrasive flap wheel's construction makes it perfect for achieving a smooth surface finish.

The abrasive flap wheel achieves a significantly smoother surface finish compared to that of a belt grinder. When choosing a grit size please select a grit size that is 2-3 sizes coarser than that used with a belt grinder.



#### **Abrasive belt 40 grit**

- ▶ short distinctive line pattern
- ▶ rough surface
- ▶ high contrast finish



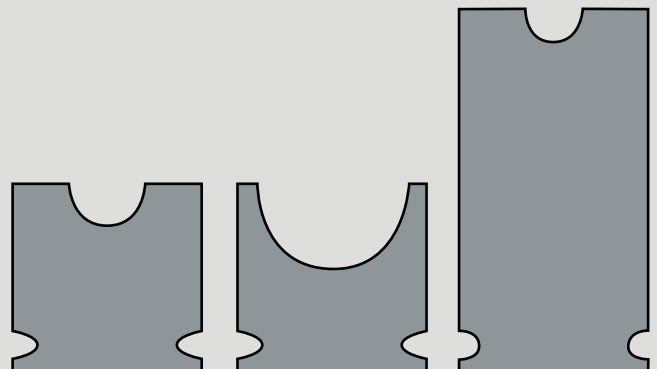
#### **Abrasive flap wheel 40 grit**

- ▶ long continuous line pattern
- ▶ minimum depression
- ▶ smooth finish

### Common profilings

Pre-profiled abrasive flap wheels are designed to adapt perfectly to the contours of your individual workpiece and provide excellent results from the very beginning. Time consuming pre-profiling of the abrasive mop is no longer needed.

If you require an individualised abrasive flap wheel, we would be pleased to assist you with this.





# Abrasive flap wheels

## Applications guide

### Selection of the correct mop diameter

To be able to work at the optimal cutting rate (38-42 m/s) the selection of the abrasive mop diameter for machines, that are not equipped with RPM setting functionality, is based on the set RPM. Machines that are equipped with RPM setting functionality are to be set according to the abrasive flap wheel diameter settings.

**Before turning the machine on please check that the pre-set RPM does not exceed the maximum abrasive mop RPM setting.**

Please refer to the adjoining table for the correct abrasive mop diameter settings for the optimal RPM range.

If the abrasive flap wheel is used at the optimal RPM setting, the grinding flaps stand up straight as result of the centrifugal forces around the core and provide optimum abrasive flap wheel grinding properties. Only the edges of the grinding flaps are subjected to wear and tear. This results in the use of new and sharper grits. This ensures uniform stock removal and surface finish – from the first to the last workpiece.

Suboptimal RPM settings (too low) result in the incorrect positioning of the grinding flap as a result of tool / grinding pressure. This results in wear and tear on the grit side of the grinding flaps, and the area the abrasive flap wheel grinds is too large, which in turn results in higher friction between the workpiece and the grinding flaps. Consequently the workpiece and abrasive flap wheel are subjected to a higher thermal load and a higher degree of wear and tear on the grinding flaps. Ultimately, this can result in the failure of the abrasive flap wheel and damaged grinding flaps.

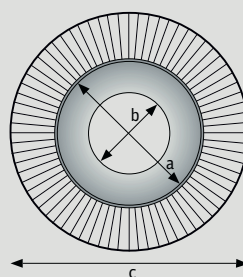
#### Maximum RPM

Klingspor SM 611 abrasive flap wheels are certified for widths of ≤ 100 mm and maximum revolutions per minute of 50 m/s.

#### Optimal cutting rate

The abrasive flap wheel's optimum performance range is a cutting rate between 38-42 m/s.

Mop-Ø [mm]	Recommended RPM range [min-1] (38 - 42 m/s)
100	7,300–8,000
140	5,200–5,700
165	4,400–4,800
200	3,650–4,000
250	2,900–3,200
300	2,400–2,650
350	2,100–2,300
380	1,900–2,100
410	1,750–1,950
480	1,500–1,650
510	1,400–1,550



- a Outer diameter side cover
- b Hole side cover
- c Outer diameter mop

### Mop side cover and hole relative to the outer mop diameter\*

Type	Mop wheel outer Ø [mm]	Metal side cover		Matching clamping flange SMD 612
		Outer Ø [mm]	Hole [mm]	
SM 611	100 - 140	60	21,0	14821
	150 - 165	82	43,1	14823
	200 - 250	125	68,2	14824
	300	158	97,8	14826
	350	198	131,8	14827
	380 - 410	224	151,6	14829
	480 - 510	332	244,5	-
MM 650	250	82	43,1	14823

\* applies to standard versions (stock items)

### Packet assembling

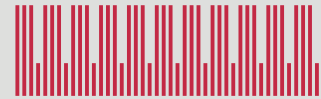
Another way to influence the grinding result is packet assembling. During packet assembling an intermediate layer is stamped between the cloth flaps. This creates space between the individual flaps, which influences the grinding behaviour of the wheel. The higher the ratio of grinding flaps to intermediate layers, the harder the abrasive flap wheel.

The standard abrasive flap wheel is manufactured without packet assembling.

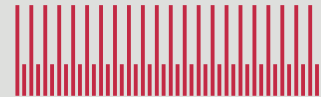
Exception: Starting at a diameter of  $\geq 250$  mm, a width of  $\geq 50$  mm, and a grit size of 220 and finer, abrasive flap wheels are manufactured with a packet assembly ratio of 5:1.



5:1



3:1



1:1

### Factors influencing the grinding result

The surface finish is dependent upon a wide range of process parameters. The table below illustrates the different influencing factors and their affect on the grinding result.

Influencing factor		Grinding result		
		Stock removal*	Surface finish	Service life
Cutting rate	high	increases	finer	shorter
	low	decreases	coarser	longer
Tool / grinding pressure	high	increases	coarser	shorter
	marginal	decreases	finer	longer
Grit size	rough	increases	coarser	shorter
	fine	decreases	finer	longer
Grinding aids (oils, lubricants)	without	increases	coarser	shorter
	with	decreases	finer	longer

\* Note: the essential parameters that affect the stock removal rate are the selection of a coarser (more stock removal) or finer (less stock removal) grit.

### The safe use of Klingspor abrasives

Klingspor abrasive mops are manufactured in accordance with the oSa and EN 13743 standards, this ensures the highest level of user safety.



Wear safety goggles or glasses to protect the eyes



Wear a dust mask



Use ear protectors



Wear safety gloves to protect hands



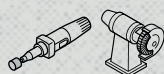
Observe safety instructions

# Abrasive flap wheels

## Abrasive mop

Abrasive mop

### SM 611



#### Properties

Bonding agent	Resin
Grain	Aluminium oxide

#### Applications:

Paint/Varnish/Filler	●
Wood	●
Plastic	●
Metals	●

**Advantages:** Even surface scratch pattern due to continuously fresh, unused abrasive grit - For universal use on all materials - Adapts optimally to workpiece contour

Available grits:

16	24	30	36	40	50	60	80	100	120	150	180	220	240	280	320	360	400	500	600	800	1000	1200	1500	2000	2500	3000
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Diameter x Width x Bore in mm	Grit	Max. operating speed	Max. RPM	Packing unit/pcs.	Cat. number
165 x 50 x 43,1	60	50 m/s	5800 rpm	3	12107
300 x 50 x 97,8	80	50 m/s	3200 rpm	1	12288

Mounting plate

### SMD 612



**Advantages:** Ensures a smooth running and the safe mounting on the machine

Diameter x Bore in mm	Suitable for	Max. enlargement of bore Ø in mm	Packing unit/pcs.	Cat. number
79 x 12	SM 611/NCW/NFW 600 (Ø150+Ø165)	Ø 40 mm	2	14823

Other grits and sizes available on request.

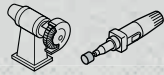
# Abrasive flap wheels

Abrasive mop



Abrasive mop

## SM 611 H



### Properties

Bonding agent	Resin
Grain	Aluminium oxide

### Applications:

Paint/Varnish/Filler	●
Wood	●
Plastic	●
Metals	●



**Advantages:** Wooden core with mounting bore diameter of 13 mm for fast mounting - Can be used without mounting plate SMD 612 - Enlargement of the mounting bore is relatively uncomplicated

Available grits:

16	24	30	36	40	50	60	80	100	120	150	180	220	240	280	320	360	400	500	600	800	1000	1200	1500	2000	2500	3000
----	----	----	----	----	----	----	----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	------	------	------	------	------	------

Diameter x Width x Bore in mm	Grit	Max. operating speed	Max. RPM	Packing unit/pcs.	Cat. number
165 x 25 x 13	40	50 m/s	5800 rpm	5	10030
165 x 25 x 13	60	50 m/s	5800 rpm	5	10005
165 x 25 x 13	120	50 m/s	5800 rpm	5	10006
165 x 25 x 13	240	50 m/s	5800 rpm	5	10027
165 x 50 x 13	40	50 m/s	5800 rpm	3	10022
165 x 50 x 13	60	50 m/s	5800 rpm	3	10017
165 x 50 x 13	80	50 m/s	5800 rpm	3	10018
165 x 50 x 13	120	50 m/s	5800 rpm	3	15990

Angle grinder mop

## WSM 617



### Properties

Bonding agent	Resin
Grain	Aluminium oxide

### Applications:

Steel	●	Wood	●
Stainless steel	●		
Paint	●		
Plastic	●		



**Advantages:** Can be used on all standard angle grinders (80 m/s) - For universal use; in front and side position - Easy tool changing by hand without additional aids

Available grits:

16	24	30	36	40	50	60	80	100	120	150	180	220	240	280	320	360	400	500	600	800	1000	1200	1500	2000	2500	3000
----	----	----	----	----	----	----	----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	------	------	------	------	------	------

Diameter x Width in mm	Grit	Thread/Shaft	Max. operating speed	Max. RPM	Packing unit/pcs.	Cat. number
125 x 20	40	thread M14	80 m/s	12200 rpm	2	277018
125 x 20	60	thread M14	80 m/s	12200 rpm	2	277019
125 x 20	80	thread M14	80 m/s	12200 rpm	2	277020
125 x 20	120	thread M14	80 m/s	12200 rpm	2	277021

Other grits and sizes available on request.

# Satin finishing drums

Satin finishing drum

## SM 611 S



### Properties

Bonding agent	Resin
Grain	Aluminium oxide

### Applications:

Paint/Varnish/Filler	●
Wood	●
Plastic	●
Metals	●



**Advantages:** Even surface scratch pattern - Special product for fine surface finishing

Available grits:

16	24	30	36	40	50	60	80	100	120	150	180	220	240	280	320	360	400	500	600	800	1000	1200	1500	2000	2500	3000
----	----	----	----	----	----	----	----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	------	------	------	------	------	------

Diameter x Width x Bore in mm	Grit	Max. operating speed	Max. RPM	Packing unit/pcs.	Cat. number
100 x 100 x 19	40	19 m/s	3700 rpm	1	83167
100 x 100 x 19	60	19 m/s	3700 rpm	1	7325
100 x 100 x 19	80	19 m/s	3700 rpm	1	7326

Other grits and sizes available on request.





# Small abrasive flap wheels

## About the product

The small abrasive flap wheel comprises of grinding flaps coated with aluminium oxide. The fan-shaped abrasive flaps are securely fixed to a central mounting spindle. The grinding flaps' fan-shaped radial arrangement adapts perfectly to the contours of the workpiece.

The wide range of grits (40 – 320) and top size coat additives (with and without multibonds) make the Klingspor small abrasive flap wheel perfect for a wide range of applications.

The small abrasive flap wheel is equipped with the following standard features: a 6 mm or 3 mm fixing spindle and a shaft length of 40 mm.

## Application examples

- ▶ Grinding work for tool and mould making
- ▶ Processing of profiled workpieces
- ▶ Processing of internal surfaces on pipework, fittings and difficult-to-reach areas
- ▶ Grinding work on small parts and casing

Type	Material applications																Machine applications
	Metal	Apparatus / container engineering	Precision engineering	Mould making	Fittings	Pipes	Profiled sections	Tools	Mountings	Cutlery	Wood	Contoured wood	Model construction	Profiled sections	Plastics	Flexible shafts	
<b>KM 613</b>	●	●	●	●	●	●	●	●	●	●	○	○	○	○	○	●	●
<b>KM 615</b>	●	●	●	●	●	●	●	●	●	●	●	●	○	○	●	●	●
<b>KMT 614</b>	●	●	●	●	●	●	●	●	●	●	○	○	○	○	○	●	●

● = main application    ○ = possible application

## Minimum order quantities for made to order items

Product	Grit	Minimum order quantities
<b>KM 613</b>	40–320	250 pieces
	from 360	500 pieces
<b>KM 615</b>	40–180	250 pieces
<b>KMT 614</b>	40–320	250 pieces
	from 360	500 pieces

## Application recommendations

- ▶ The small abrasive flap wheel can be used with flexible shaft grinders, die grinders (pneumatic, electric) or drilling machines.
- ▶ The small abrasive flap wheel's optimum performance is achieved at a cutting rate between 20 – 25 m/s. By observing these speeds, the product will perform at its most economical as regards tool wear, stock removal, surface finish and thermal load of the workpiece.

## Factors influencing the grinding result

### Stock removal

An increase in stock removal should only occur as a result of using coarser grit and not as a result of increased tool / grinding pressure.

Steady increased tool / grinding pressure

- ▶ results in unnecessary tool wear and tear
- ▶ results in increased workpiece temperature load
- ▶ can result in tool failure

### Surface finish

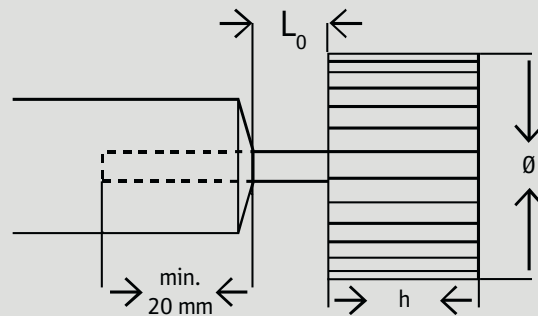
- ▶ The wear of the outer edge of the grinding flaps results in the presentation of new sharp abrasive grain, which results in a uniform surface finish
- ▶ The surface roughness decreases through an increase in the cutting rate
- ▶ An increase in the tool / grinding pressure results in a coarser surface finish
- ▶ The small abrasive flap wheel achieves a significantly smoother surface finish compared to that of a belt grinder

### Temperature load

- ▶ By reducing the tool / grinding pressure and the peripheral speeds the temperature load of the workpiece and the tool is reduced.

ø [mm]	Height h [mm]	Maximum operating speed [m/s]*	RPM [1/min]		
			L <sub>0</sub> = 0 mm	L <sub>0</sub> = 10 mm	L <sub>0</sub> = 20 mm
10	≤ 15	40	76,300	55,000	35,000
15	≤ 25	40	50,500	37,000	28,000
20	≤ 20	40	38,150	28,600	21,900
25	≤ 15	40	30,500	22,900	17,500
30	≤ 15	40	25,400	19,000	14,600
40	≤ 20	40	19,000	14,300	10,900
50	≤ 30	40	15,200	11,400	8,700
60	≤ 40	40	12,700	9,500	7,300
	50	32	10,150	7,900	6,300
80	≤ 40	40	9,500	7,100	5,400
	50	32	7,650	6,000	4,800

\* for exposed shank length L<sub>0</sub>=0 mm



### Tool wear

Tool wear is reduced by working with a lower grinding pressure.

To ensure the optimal and most efficient use of a tool

- ▶ the maximum revolutions per minute may not be exceeded
- ▶ the fixing spindle length of the small abrasive flap wheel in the mounting device must be at least 20 mm
- ▶ the set revolutions per minute may not be exceeded when using an exposed shaft length L<sub>0</sub> (please refer to the table above)

For additional information please refer to the safety information provided with the product.

# Small abrasive flap wheels

## Abrasive mop

Small abrasive mop

### KM 613



#### Properties

Bonding agent	Resin
Grain	Aluminium oxide

#### Applications:

Stainless steel	●
Metals	●
Wood	○
Plastic	○



Advantages: Universal product for steel and stainless steel materials - Even removal rate - Suitable for use in hard-to-reach areas

Available grits:

16	24	30	36	40	50	60	80	100	120	150	180	220	240	280	320	360	400	500	600	800	1000	1200	1500	2000	2500	3000
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Diameter x Width x Shaft in mm	Grit	Max. operating speed	Max. RPM	Packing unit/pcs.	Cat. number
20 x 10 x 6	40	40 m/s	38150 rpm	25	284729
20 x 10 x 6	60	40 m/s	38150 rpm	25	284730
20 x 10 x 6	80	40 m/s	38150 rpm	25	284731
20 x 10 x 6	120	40 m/s	38150 rpm	25	284732
20 x 15 x 6	60	40 m/s	38150 rpm	25	284737
25 x 10 x 6	60	40 m/s	30500 rpm	10	253591
25 x 15 x 6	60	40 m/s	30500 rpm	10	250985
25 x 15 x 6	80	40 m/s	30500 rpm	10	237496
30 x 10 x 6	40	40 m/s	25400 rpm	10	12816
30 x 10 x 6	60	40 m/s	25400 rpm	10	12817
30 x 10 x 6	80	40 m/s	25400 rpm	10	12818
30 x 10 x 6	120	40 m/s	25400 rpm	10	12820
30 x 15 x 6	40	40 m/s	25400 rpm	10	12843
30 x 15 x 6	60	40 m/s	25400 rpm	10	12844
30 x 15 x 6	80	40 m/s	25400 rpm	10	12845
30 x 15 x 6	100	40 m/s	25400 rpm	10	12846
30 x 15 x 6	120	40 m/s	25400 rpm	10	12847
40 x 10 x 6	60	40 m/s	19000 rpm	10	12871
40 x 10 x 6	80	40 m/s	19000 rpm	10	12872
40 x 10 x 6	120	40 m/s	19000 rpm	10	12874
40 x 15 x 6	40	40 m/s	19000 rpm	10	12906
40 x 15 x 6	60	40 m/s	19000 rpm	10	12907
40 x 15 x 6	80	40 m/s	19000 rpm	10	12908
40 x 15 x 6	120	40 m/s	19000 rpm	10	12910
40 x 20 x 6	40	40 m/s	19000 rpm	10	12942
40 x 20 x 6	60	40 m/s	19000 rpm	10	12943
40 x 20 x 6	80	40 m/s	19000 rpm	10	12944
40 x 20 x 6	120	40 m/s	19000 rpm	10	12946
40 x 20 x 6	240	40 m/s	19000 rpm	10	12949
50 x 15 x 6	60	40 m/s	15200 rpm	10	12979
50 x 15 x 6	80	40 m/s	15200 rpm	10	12980
50 x 15 x 6	120	40 m/s	15200 rpm	10	12982
50 x 20 x 6	40	40 m/s	15200 rpm	10	12996
50 x 20 x 6	60	40 m/s	15200 rpm	10	12997

Other grits and sizes available on request.



# Small abrasive flap wheels

Abrasive mop



## ►► Continuation of KM 613, Small abrasive mop

Diameter x Width x Shaft in mm	Grit	Max. operating speed	Max. RPM	Packing unit/pcs.	Cat. number
50 x 20 x 6	80	40 m/s	15200 rpm	10	12998
50 x 20 x 6	120	40 m/s	15200 rpm	10	13000
50 x 30 x 6	40	40 m/s	15200 rpm	10	61282
50 x 30 x 6	60	40 m/s	15200 rpm	10	61299
50 x 30 x 6	80	40 m/s	15200 rpm	10	61319
50 x 30 x 6	120	40 m/s	15200 rpm	10	61350
60 x 20 x 6	40	40 m/s	12700 rpm	10	13032
60 x 20 x 6	60	40 m/s	12700 rpm	10	13033
60 x 20 x 6	80	40 m/s	12700 rpm	10	13034
60 x 30 x 6	40	40 m/s	12700 rpm	10	13050
60 x 30 x 6	60	40 m/s	12700 rpm	10	13051
60 x 30 x 6	80	40 m/s	12700 rpm	10	13052
60 x 30 x 6	120	40 m/s	12700 rpm	10	13054
60 x 40 x 6	40	40 m/s	12700 rpm	10	13068
60 x 40 x 6	60	40 m/s	12700 rpm	10	13069
60 x 40 x 6	80	40 m/s	12700 rpm	10	13070
60 x 40 x 6	120	40 m/s	12700 rpm	10	13072
60 x 50 x 6	40	32 m/s	10150 rpm	10	13086
60 x 50 x 6	60	32 m/s	10150 rpm	10	13087
60 x 50 x 6	80	32 m/s	10150 rpm	10	13088
80 x 20 x 6	60	40 m/s	9500 rpm	10	13123
80 x 30 x 6	40	40 m/s	9500 rpm	10	13140
80 x 30 x 6	60	40 m/s	9500 rpm	10	13141
80 x 30 x 6	80	40 m/s	9500 rpm	10	13142
80 x 30 x 6	120	40 m/s	9500 rpm	10	13144
80 x 50 x 6	40	32 m/s	7650 rpm	10	13176
80 x 50 x 6	60	32 m/s	7650 rpm	10	13177
80 x 50 x 6	80	32 m/s	7650 rpm	10	13178
80 x 50 x 6	120	32 m/s	7650 rpm	10	13180

Other grits and sizes available on request.





# Non-woven products

## About the product

Thanks to its open, elastic structure, a non-woven abrasive web is capable of applying "soft" sanding to produce surfaces with a low scratch depth that are particularly fine. Fully and evenly interspersed with abrasive grain, a non-woven abrasive web can be used to produce a uniform and reproducible scratch pattern while also delivering a long service life.

Thanks to the great many beneficial properties of the material, the importance of non-woven products in the field of surface finishing is increasing steadily, especially for the work step of "finishing stainless steel surfaces".

Carrying an extensive variety of products with differences in fibre structure, grain, grit, bond and density, Klingspor offers the right abrasive tool for every processing step - from light deburring and stock removal to cleaning and creating satin finishes to the polishing of surfaces.

			Machines												Material applications						
Work step	Type	Tool type	Angle grinder	Drilling machine	Die grinder	Flexible shaft grinder	Back stand grinding machine	Hand tool belt grinder	Right angle die grinder	Orbital sander	Satin finishing machine	Floor standing grinder	Random orbital sander	Fillet weld grinder	Hand sanding	Stainless Steel	Steel	NF metals	Varnish	Plastic	Wood
Light sanding and creating satin finishes	<b>SMT 850 plus</b>	Combi-abrasive mop disc	●													●	○				
	<b>SMT 800</b>	Non-woven mop disc	●													●	●	●			
	<b>SV 484</b>	SCM non-woven web disc (universal)	●													●	●	●	○		
	<b>NDS 800</b>	SCM non-woven web disc (hard, edge)	●													●	●	●	○		
	<b>NBS 800</b>	SCM non-woven web belt					●									●	●	●			
	<b>NBF 800</b>	SCM non-woven file belt						●								●	●	●			
	<b>QMC/QRC 800</b>	SCM Quick Change Disc							●							●	●	●			
Coarse cleaning, removal of coatings	<b>PW 2000</b>	Power wheel		●	●	●										●	●	○	●		
	<b>NCD 200</b>	Coarse cleaning disc	●													●	●	○	●		
	<b>NCD 200 HD</b>	Coarse cleaning disc HD	●													●	●	○	○		
	<b>QRC 200 HD</b>	Coarse cleaning QCD							●							●	●	○	○		
Finishing and creating matt finishes	<b>NRO 400</b>	Non-woven web roll, aluminium oxide								●					●	●	●	●	○	○	○
	<b>NRO 500</b>	Non-woven web roll, SiC								●					●	●	○	○	●	●	○
	<b>NPA 400</b>	Non-woven hand pad, aluminium oxide								●					●	●	●	○	○	○	○
	<b>NPA 500</b>	Non-woven hand pad, SiC								●					●	●	○	○	●	●	○
	<b>NFW 600 S</b>	Non-woven finishing wheel									●					●	●	●		○	
	<b>NCW 600 S</b>	Non-woven combi finishing wheel									●					●	●	●		○	
	<b>NFW 600</b>	Non-woven finishing wheel										●				●	●	●		○	
	<b>NCW 600</b>	Non-woven combi finishing wheel										●				●	●	●		○	
	<b>NDS 400 K</b>	Non-woven self-adhesive disc											●			●	●	●	●	●	○
	<b>QMC/QRC 400</b>	Non-woven QCD							●							●	●	●	○	○	
	<b>NFS 600</b>	Non-woven mounted wheel		●	●	●										●	●	●		○	
	<b>NCS 600</b>	Combi non-woven mounted wheel		●	●	●										●	●	●		○	
Removal of heat tinting, pre-polishing	<b>NUD 500</b>	Unitised compact disc	●													●	●	●			
	<b>MFW 600</b>	Unitised compact disc / wheel	●											●		●	●	●			
	<b>QRC 500</b>	Unitised compact QCD							●							●	●	●			

● = main application ○ = possible application



# Non-woven products

## Applications guide

### Types of non-woven material

When trying to find the product that is right for your application, you will want to factor in the properties of the non-woven material.

Non-woven material is divided into four different categories:

- ▶ Soft non-woven material without fabric lining (clean and finish)
- ▶ Non-woven material with fabric lining (Surface Conditioning Material – SCM)
- ▶ Highly compacted fleece (unitised and convolute)
- ▶ Coarse cleaning fleece (clean and strip)

#### General benefits of non-woven materials

##### Wide range of applications for finishing

- ▶ The products are available with various grains and densities

#### Exceptionally long service life

- ▶ Continuous release of new abrasive grains
- ▶ Even finish throughout the entire service life
- ▶ No clogging thanks to open structure

#### Uniform scratch pattern

- ▶ Abrasive grains are distributed evenly in the material structure
- ▶ No excessive penetration into the workpiece surface

#### Perfect contouring to the workpiece

- ▶ The structure of non-woven materials is exceedingly flexible
- ▶ Shape and geometry of the base material remain unchanged

### Finishing processes, typical work steps



#### Light sanding and creating satin finishes

Light stock removal combined with an excellent finish. The right choice: Non-woven tools made of SCM non-woven material with fabric lining (e.g. belts, discs) or combinations with non-woven and coated abrasives (e.g. SMT 850).



#### Coarse cleaning

Removal of rust, scale and varnish as well as coatings in general and effortless removal of heat tinting. The right choice: Non-woven tools made of coarse cleaning fleece with an extra open structure, relatively strong non-woven fibres and coarse abrasive grain.



#### Finishing and creating matt finishes

Blending scratch patterns, cleaning surfaces and creating a final finish; no stock removal. The right choice: Tools, often including tools for off-hand sanding, made of soft, flexible non-woven material.



#### Removal of heat tinting and pre-polishing

Removal of heat tinting and/or creation of surfaces with a low scratch depth that are particularly fine. The right choice: Tools made of highly compacted fleece. Depending on its density and degree of fineness, the non-woven material may even allow for light stock removal or light deburring.

## Non-woven products

Applications guide



### Non-woven nylon material in four different shapes

#### Non-woven material without fabric lining



NCW 600 (S)



NFW 600 (S)



NDS 400 K



QMC / QRC 400



NPA 400 / 500



NRO 400 / 500



NCS 600



NFS 600

#### Non-woven material with fabric lining



SMT 800 SPECIAL



SMT 850 plus SPECIAL



NBS 800



NBF 800



SV 484



NDS 800



QMC / QRC 800

#### Highly compacted fleece



MFW 600

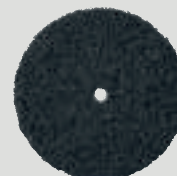


NUD 500



QRC 500

#### Coarse cleaning fleece



PW 2000



NCD 200



QRC 200 HD



NCD 200 HD

# Non-woven products

## Applications guide

### Rolls and sheets

### Minimum order quantities for made to order items

Format/style	Product	Width	Minimum order quantity
Rolls	NRO 400 / 500		Dimensions and quantities on request
Sheets	NPA 400 / 500		Dimensions and quantities on request



### Grit chart

Grit		80 - 100	120 - 150	180 - 220	240 - 320	800 - 1000	without grain
Grade		coarse	medium	fine	very fine	ultra fine	non-abrasive
Klingspor Non-woven web hand pads and rolls	Aggressiveness decreasing ↓	coarse A – brown					
			medium SiC – black				
			medium A – maroon				
				fine A – maroon			
					very fine HD – green		
						very fine GP – dark green	
						very fine A – maroon	
							ultra fine SiC – grey
							non-abrasive – white





**Belts**

**Minimum order quantities for  
made to order items**

Format/style	Product	Width	Minimum order quantity
Belts	NBF 800	6 – 13 mm	20 pieces
		14 – 30 mm	10 pieces
	NBS 800	31 – 75 mm	5 pieces
		76 – 320 mm	2 pieces

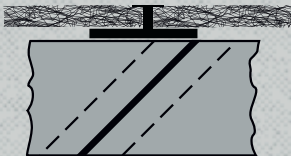
The minimum length for non-woven belts is 270 mm. We reserve the right to over-deliver or under-deliver production items.



**Grit chart**

Grit		60 - 80	120 - 150	180 - 240
Grade		coarse	medium	very fine
Klingspor Non-woven web belts	Aggressiveness decreasing ↓	coarse A – brown		
			medium A – purple	
				very fine – blue

**Belt joints for non-woven belts**



**Form 4 W**  
Bevel cut, butt joint, with fabric tape on the rear and bonding on the face side. Special joint for non-woven file belts, product type NBF 800.

# Non-woven products

## Applications guide

### Quick Change Discs

### Minimum order quantities for made to order items

Format/style	Product	Diameter	Minimum order quantity
Quick Change Discs	QRC 800	38 mm	400 pieces
		50 mm	350 pieces
		76 mm	350 pieces
	QRC 400	38 mm	700 pieces
		50 mm	500 pieces
		76 mm	375 pieces

We reserve the right to over-deliver or under-deliver production items.



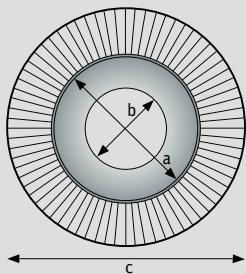
### Grit chart for QRC 800

Grit		60 - 80	120 - 150	180 - 240
Grade		coarse	medium	very fine
Klingspor Quick Change Discs	Aggressiveness decreasing ↓	coarse A – brown		
			medium A – purple	
				very fine – blue

### Abrasive flap wheel

#### Minimum order quantities for made to order items

Format/style	Product	Diameter	Minimum order quantity
Abrasive flap wheel	NFW 600 / NCW 600	100 – 165 mm	20 pieces
		200 – 300 mm	10 pieces
	NFW 600 S / NCW 600 S	100 – 110 mm	20 pieces
Small abrasive flap wheel	NCS 600 / NFS 600	30, 40, 50, 60 mm	150 pieces
		80, 100 mm	100 pieces



- a Outer diameter side cover
- b Hole side cover
- c Outer diameter mop

#### Mop side cover and hole relative to the outer mop diameter\*

Type	Flap wheel outer Ø [mm]	Metal side cover		Matching clamping flange SMD 612
		Outer Ø [mm]	Hole [mm]	
NCW/NFW 600	165	82	43,1	14823
	200-250	125	68,2	14824
	300	158	97,8	14826

\* applies to standard versions (stock items)

# Non-woven web

## Rolls

Non-woven web roll, waterproof

### NRO 400



#### Properties

Bonding agent	Resin
Grain	Aluminium oxide
Non-woven material type	Soft non-woven material

#### Applications:

Stainless steel	●	Paint/Varnish/Filler	①
Metals	●		
Wood	●		
Plastic	①		

**Advantages:** Very good adaptation to surface contours - No clogging - Ideal for smoothing, cleaning, roughening and for general surface finishing - Can be used wet and dry

Width x Length in mm	Colour	Grade	Packing unit/pcs.	Cat. number
115 x 10000	maroon	medium	1	258885
115 x 10000	dark green	very fine general purpose	1	258886
115 x 10000	maroon	very fine	1	258888

Non-woven web roll, waterproof

### NRO 500



#### Properties

Bonding agent	Resin
Grain	SiC
Non-woven material type	Soft non-woven material

#### Applications:

Stainless steel	●	Wood	①
Plastic	●		
Paint/Varnish/Filler	●		
Metals	①		

**Advantages:** Very good adaptation to surface contours - No clogging - Ideal for smoothing, cleaning, roughening and for general surface finishing - Can be used wet and dry

Width x Length in mm	Colour	Grade	Packing unit/pcs.	Cat. number
115 x 10000	white	without grain	1	299010
115 x 10000	black	medium	1	260366
115 x 10000	grey	ultra fine	1	258889

# Non-woven web

## Hand pads



Non-woven web hand pad, waterproof

### NPA 400



#### Properties

Bonding agent	Resin
Grain	Aluminium oxide
Non-woven material type	Soft non-woven material

#### Applications:

Stainless steel	●	Plastic	●
Metals	●		
Wood	●		
Paint/Varnish	●		

**Advantages:** Outstanding for surface finishing, e.g. adaptation to an existing surface scratch pattern - Can be used wet and dry

Width x Length in mm	Colour	Grade	Packing unit/pcs.	Cat. number
152 x 229	brown	coarse	20	342852
152 x 229	maroon	very fine	20	342849
152 x 229	dark green	very fine general purpose	20	342854

Non-woven web hand pad, waterproof

### NPA 500



#### Properties

Bonding agent	Resin
Grain	SiC
Non-woven material type	Soft non-woven material

#### Applications:

Paint/Varnish	●	Wood	●
Plastic	●		
Stainless steel	●		
Metals	●		

**Advantages:** Outstanding for surface finishing, e.g. adaptation to an existing surface scratch pattern - Can be used wet and dry

Width x Length in mm	Colour	Grade	Packing unit/pcs.	Cat. number
152 x 229	black	medium	20	342857
152 x 229	grey	ultra fine	20	342851
152 x 229	white	without grain	20	342850

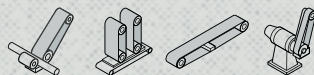


# Non-woven web

Belts / Discs

SCM standard belt

## NBS 800



### Properties

Bonding agent	Resin
Grain	Aluminium oxide
Non-woven material type	Non-woven material with fabric lining

### Applications:

Stainless steel	●
NF metals	●
Metals	⦿

**Advantages:** Special product for surface finishing with hand-operated machines (except hand tool belt grinders) and stationary machines - Ideal for removal of discolorations, for light deburring, leveling, matte finishing and roughening - Minimal clogging - Long service life - Suitable for dry and wet grinding

**Available in Course(CO), Medium (ME), Very Fine (VF)**

All sizes and minimum purchasing quantities available on request

SCM disc, waterproof

## NDS 800



### Properties

Bonding agent	Resin
Grain	Aluminium oxide
Non-woven material type	Non-woven material with fabric lining

### Applications:

Metals	●	Wood	⦿
Stainless steel	●		
Paint/Varnish/Filler	⦿		
Plastic	⦿		

**Advantages:** High edge stability - Aggressive abrasive behaviour - Long service life - Can be used for wet and dry grinding - With expressible center hole for easy mounting, secure hold and smooth running on backing plates with centering - Also suited for backing pads without centering and fiber discs backing plates with clamping screw

### Available grits:

16	24	30	36	40	50	60	80	100	120	150	180	220	240	280	320	360	400	500	600	800	1000	1200	1500	2000	2500	3000
----	----	----	----	----	----	----	----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	------	------	------	------	------	------

Diameter x Bore in mm	Grit	Colour	Grade	Packing unit/pcs.	Cat. number
125 x 22	50	brown	coarse	10	320106
125 x 22	100	maroon	medium	10	320107
125 x 22	180	blue	very fine	10	320108
180	50	brown	coarse	10	262136
180	100	maroon	medium	10	262138

Self-fastening backing pad for SCM discs

### NDS 555



**Advantages:** Good adhesion for non-woven web discs - For medium-duty grinding and polishing

Diameter in mm	Thread/Shaft	Max. RPM	Packing unit/pcs.	Cat. number
125	thread M14	12200 rpm	1	208275
180	thread M14	8500 rpm	1	326078

Self-fastening backing pad for SCM discs  
with center hole

### NDS 555 C



**Advantages:** Easy and always centric positioning of the non-woven web discs - Good adhesion due to special self-fastening hooks - Less vibrations, stable running - No loosening of the discs, even with decreasing adhesion - Adaptable, for surfaces and light contours

Diameter in mm	Thread/Shaft	Suitable for	Max. RPM	Packing unit/pcs.	Cat. number
125	thread M14	Diameter 125 x 22	12200 rpm	1	358127

# Non-woven web

## Quick Change Discs

SCM quick change disc

### QRC 800



#### Properties

Bonding agent	Resin
Grain	Aluminium oxide
Non-woven material type	Non-woven material with fabric lining

#### Applications:

Metals	●
Stainless steel	●
Paint/Varnish/Filler	○

**Advantages:** For light deburring - For removal of rust and paint - Long life due to hard, stable quality of surface conditioning material

Diameter in mm	Colour	Grade	Max. RPM	Packing unit/pcs.	Cat. number
50	violet	medium	19100 rpm	50	295414
50	blue	very fine	19100 rpm	50	295415
76	violet	medium	12500 rpm	25	295420
76	blue	very fine	12500 rpm	25	295421

SCM quick change disc

### QRC 820



#### Properties

Bonding agent	Resin
Grain	Aluminium oxide
Non-woven material type	Non-woven material with fabric lining

#### Applications:

Metals	●
Stainless steel	●
Paint/Varnish/Filler	○

**Advantages:** For light deburring - For removal of rust and paint - Long life due to hard, stable quality of surface conditioning material

Diameter in mm	Colour	Grade	Max. RPM	Packing unit/pcs.	Cat. number
51	brown	coarse	19100 rpm	50	357467
76	brown	coarse	12500 rpm	25	357468

# Non-woven web

Quick Change Discs / Backin pads



Quick Change Disc, Clean and Strip

## QRC 200 HD



### Properties

Bonding agent	Resin
Grain	Ceramic coated aluminium oxide
Non-woven material type	Clean and strip material

### Applications:

Stainless steel	●
Steel	●
NF metals	●
Paint/Varnish/Filler	●

**Advantages:** Hard, aggressive cleaning fleece for heavy-duty use - Open structure, no clogging and cool grinding - Fast work progress and long service life - No change in workpiece geometry in metal applications - Can be used on the face and surface

Diameter in mm	Colour	Grade	Max. RPM	Packing unit/pcs.	Cat. number
51	green	extra coarse	10500 rpm	10	358993
76	green	extra coarse	7000 rpm	5	358994

Backing pad

## QRC 555



**Advantages:** For secure mounting of QRC discs - Optimized abrasive properties (aggressiveness, surface quality) due to two hardnesses - Easy differentiation of the hardnesses through coloured rings - Fixing spindle can be unscrewed, therefore the use on angle grinder or with adapter QCA 555 is possible via 1/4"-20 thread

Diameter in mm	Thread/Shaft	Density	Colour	Max. RPM	Packing unit/pcs.	Cat. number
50	Shaft 6 mm	medium	blue	30000 rpm	1	295428
50	Shaft 6 mm	firm	red	30000 rpm	1	295429
76	Shaft 6 mm	medium	blue	20000 rpm	1	295432
76	Shaft 6 mm	firm	red	20000 rpm	1	295433



## Non-woven web

### Abrasive mop

Adapter for quick change disc backing pad

#### QCA 555

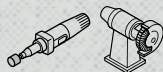


**Advantages:** Quick Change Disc Adapter with M14 female thread and 1/4"-20 male thread - Allows use of quick change discs on a regular angle grinder

Width x Length in mm	Thread/Shaft	Max. operating speed	Max. RPM	Packing unit/pcs.	Cat. number
20 x 30	thread M14	80 m/s	75400 rpm	1	308693

Abrasive mop

#### NCW 600 H



##### Properties

Bonding agent	Resin
Grain	Aluminium oxide
Non-woven material type	Soft non-woven material + abra- sive cloth flaps

##### Applications:

Stainless steel	●
Metals	●
Plastic	⦿

**Advantages:** A combination of non-woven web and abrasive cloth for an extra fine scratch pattern on metal surfaces

Diameter x Width x Bore in mm	Grit	Grade	Colour	Max. operating speed	Max. RPM	Packing unit/pcs.	Cat. number
165 x 50 x 13	80	coarse	maroon	32 m/s	3700 rpm	3	308583
165 x 50 x 13	100	medium	maroon	32 m/s	3700 rpm	3	308584



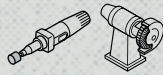
# Non-woven web

## Abrasive mop



Nylon webbed mop

### NFW 600 H



#### Properties

Bonding agent	Resin
Grain	Aluminium oxide

#### Applications:

Metals	●
Stainless steel	●

**Advantages:** Abrasive mop wheel for mat, satin and final finishing of metal surfaces



Diameter x Width x Bore in mm	Grade	Colour	Max. operating speed	Max. RPM	Packing unit/pcs.	Cat. number
165 x 50 x 13	coarse	maroon	32 m/s	3700 rpm	3	308586
165 x 50 x 13	medium	maroon	32 m/s	3700 rpm	3	308587
165 x 50 x 13	very fine	maroon	32 m/s	3700 rpm	3	308588

Combi non-woven web drum

### NCW 600 S



#### Properties

Bonding agent	Resin
Grain	Aluminium oxide
Non-woven material type	Soft non-woven material + abrasive cloth flaps

#### Applications:

Stainless steel	●
Metals	●
Plastic	○

**Advantages:** High removal rate and fine surface scratch pattern due to combination of non-woven and abrasive cloth flaps - Long service life



Diameter x Width x Bore in mm	Grit	Grade	Colour	Max. operating speed	Max. RPM	Packing unit/pcs.	Cat. number
110 x 100 x 19	80	coarse	maroon	19 m/s	3300 rpm	1	320246
110 x 100 x 19	100	medium	maroon	19 m/s	3300 rpm	1	320247
110 x 100 x 19	150	medium	maroon	19 m/s	3300 rpm	1	320248
110 x 100 x 19	180	very fine	maroon	19 m/s	3300 rpm	1	320249

## Non-woven web

### Abrasive mop

Non-woven web drum

#### NFW 600 S



##### Properties

Bonding agent	Resin
Grain	Aluminium oxide
Non-woven material type	Soft non-woven material

##### Applications:

Metals	●
Stainless steel	●

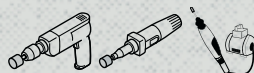


**Advantages:** Even finish throughout the entire service life - Optimal tool with high quality non-woven flaps for creating a matt or satin finish

Diameter x Width x Bore in mm	Grade	Colour	Max. operating speed	Max. RPM	Packing unit/pcs.	Cat. number
110 x 100 x 19	coarse	maroon	19 m/s	3300 rpm	1	320253
110 x 100 x 19	medium	maroon	19 m/s	3300 rpm	1	320254
110 x 100 x 19	very fine	maroon	19 m/s	3300 rpm	1	320255

Combi non-woven web spindle mop

#### NCS 600



##### Properties

Bonding agent	Resin
Grain	Aluminium oxide
Non-woven material type	Soft non-woven material + abrasive cloth flaps

##### Applications:

Stainless steel	●
Metals	●
Plastic	○



**Advantages:** High removal rate and fine surface scratch pattern due to combination of non-woven and abrasive cloth flaps - Long service life

Diameter x Width x Shaft in mm	Grit	Grade	Colour	Max. operating speed	Max. RPM	Packing unit/pcs.	Cat. number
50 x 30 x 6	60	coarse	maroon	32 m/s	12200 rpm	10	258932
50 x 30 x 6	100	medium	maroon	32 m/s	12200 rpm	10	258933
60 x 30 x 6	60	coarse	maroon	32 m/s	10200 rpm	10	258936
60 x 30 x 6	100	medium	maroon	32 m/s	10200 rpm	10	258937
80 x 50 x 6	60	coarse	maroon	32 m/s	7600 rpm	10	258944
80 x 50 x 6	100	medium	maroon	32 m/s	7600 rpm	10	258945

# Non-woven web

## Flap discs



Non-woven flap disc

### SMT 800 SPECIAL



#### Properties

Grain	Aluminium oxide
Non-woven material type	Non-woven material with fabric lining
Backing plate	Glass fibre
Design	Convex 12°

#### Applications:

Stainless steel	●
Steel	●



**Advantages:** High quality non-woven flap disc for stainless steel finish work - Optimal results when used on variable speed angle grinders - Three grades

Diameter x Bore in mm	Form	Grade	Colour	Max. operating speed	Max. RPM	Recommended operating speed	Recommended RPM	Packing unit/pcs.	Cat. number
125 x 22,23		coarse	brown	80 m/s	12200 rpm	42 m/s	6400 rpm	5	278498
125 x 22,23		medium	maroon	80 m/s	12200 rpm	42 m/s	6400 rpm	5	278499
125 x 22,23		very fine	green	80 m/s	12200 rpm	42 m/s	6400 rpm	5	278500

Combi-abrasive flap disc

### SMT 850 plus SPECIAL



#### Properties

Grain	Aluminium oxide
Non-woven material type	Non-woven material with fabric lining+ abrasive cloth flaps
Backing plate	Glass fibre
Design	Convex 12°

#### Applications:

Stainless steel	●
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**Advantages:** High-quality combi surface conditioning flap disc - Specially suited for machining of WIG weld seams on stainless steel components - Even finish throughout the entire service life - Stock removal and finishing in one step

Diameter x Bore in mm	Form	Grit	Grade	Colour	Max. operating speed	Max. RPM	Recommended operating speed	Recommended RPM	Packing unit/pcs.	Cat. number
125 x 22,23		60	coarse	brown	80 m/s	12200 rpm	42 m/s	6400 rpm	5	312559
125 x 22,23		80	medium	maroon	80 m/s	12200 rpm	42 m/s	6400 rpm	5	312560
125 x 22,23		120	very fine	green	80 m/s	12200 rpm	42 m/s	6400 rpm	5	312561

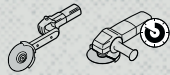


# Non-woven web

## Unitized discs

Unitized disc

### MFW 600



#### Properties

Bonding agent	Resin
Grain	SiC
Non-woven material type	Highly compacted material made of compressed non-woven web layers

#### Applications:

Steel	●
Stainless steel	●
NF metals	●

**Advantages:** Special product for finishing stainless steel weld seams - 4 different grades for material removal up to high gloss

Diameter x Width x Bore in mm	Grade	Colour	Max. operating speed	Max. RPM	Packing unit/pcs.	Cat. number
150 x 6 x 25,4	coarse	red	59 m/s	7500 rpm	5	337944
150 x 6 x 25,4	medium	grey	59 m/s	7500 rpm	5	337945
150 x 6 x 25,4	fine	grey	39 m/s	5000 rpm	5	337946

Unitized disc

### NUD 500



#### Properties

Bonding agent	Resin
Grain	SiC
Non-woven material type	Highly compacted material made of compressed non-woven web layers

#### Applications:

Alloyed steels	●	Chrome and nickel steels	●
High alloy steel	●	Steel	●
Non-ferrous metals	●	Titanium	●
Light metals	●		

Backing plate Glass fibre

Design Flat

**Advantages:** For cleaning and pre-polishing surfaces - For smoothing weld seams - Fewer work steps - Precise cleaning, clearing and finishing of surfaces - Achieves an ultra-low scratch depth on the processed material

Diameter x Width x Bore in mm	Grade	Colour	Max. operating speed	Max. RPM	Recommended RPM	Packing unit/pcs.	Cat. number
125 x 13 x 22,23	medium	grey	63 m/s	9600 rpm	5300 rpm	5	337862
125 x 13 x 22,23	very fine	grey	63 m/s	9600 rpm	5300 rpm	5	337863

# Non-woven web

Clean & Strip disc



Clean and strip disc, extra coarse

## NCD 200



### Properties

Bonding agent	Resin
Grain	SiC
Non-woven material type	Clean and strip material
Backing plate	Glass fibre
Design	Flat

### Applications:

Stainless steel	●
Steel	●
NF metals	●
Paint/Varnish/Filler	●



Plastic	●
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**Advantages:** Special SiC non-woven web for cleaning of surfaces and removal of heat tinting/blueing - No clogging due to open structure - For the removal of paint and rust

Diameter x Bore in mm	Form	Colour	Max. operating speed	Max. RPM	Packing unit/pcs.	Cat. number
100 x 16		black	63 m/s	12000 rpm	5	318660
115 x 22,23		black	63 m/s	10450 rpm	5	259043
125 x 22,23		black	63 m/s	9600 rpm	5	259044
180 x 22,23		black	63 m/s	6650 rpm	5	318745

Clean and strip disc, heavy duty

## NCD 200 HD



### Properties

Bonding agent	Resin
Grain	Ceramic coated aluminium oxide
Non-woven material type	Clean and strip material
Backing plate	Glass fibre
Design	Flat

### Applications:

Stainless steel	●
Steel	●
NF metals	●
Paint/Varnish/Filler	●



**Advantages:** Hard, aggressive non-woven version for higher loads - Open structure - No clogging - Cool grinding - Fast work progress and long service life - No change in workpiece contour

Diameter x Bore in mm	Form	Grade	Colour	Max. operating speed	Max. RPM	Packing unit/pcs.	Cat. number
125 x 22,23		extra coarse	green	63 m/s	9600 rpm	5	358004





# Abrasive flap discs

## About the product

Since their market launch, the Klingspor abrasive mop disc has successfully taken the place of the grinding disc in many areas of surface finishing.




















The performance of the abrasive mop disc, with its fan-shaped radial arrangement of cloth grinding flaps, far exceeds that of other abrasive products.

Klingspor abrasive mop discs are made of zirconia alumina, ceramic, or aluminium oxide coated flaps fastened to glass fibre-reinforced or plastic backing plates.

The even arrangement of the flaps guarantees high flexibility, constant high grinding performance and low vibrations.

## Minimum order quantities for made to order items

Diameter	Minimum order quantities
up to 150 mm	320 pieces
180 mm	160 pieces

Type		Material								Application					
		Steel	Stainless steel	High alloy stainless steel	NF metals	Aluminium	Wood	Plastics	Paint / varnish / filler	Finish grinding	Welded seam work	Edge work; bevelling	Concave fillet weld work	Rust and varnish removal	Heat tinting and oxide film removal
<b>SMT 314 EXTRA</b>		●			●	●	○				●	●			
<b>SMT 324 EXTRA</b>		●	●	●						●					
<b>SMT 324 EXTRA</b>		●	●	●							●	●			
<b>SMT 325 EXTRA</b>		●	●	●						●					
<b>SMT 325 EXTRA</b>		●	●	●							●	●			
<b>SMT 624 SUPRA</b>		●	●	●							●	●			
<b>SMT 626 SUPRA</b>		●	●	●							●	●			
<b>SMT 628 SUPRA</b>		●	●	●						●					
<b>SMT 636 SUPRA</b>			●	●	●	●				●					
<b>SMT 636 SUPRA</b>			●	●	●	●					●	●			
<b>SMT 644 SUPRA</b>		●	●	●						●					
<b>SMT 644 SUPRA</b>		●	●	●							●	●			
<b>SMT 645 SUPRA</b>		●	●	●						●					
<b>SMT 924 SPECIAL</b>		●	●								●	●			
<b>SMT 925 SPECIAL</b>		●	●	●						●					
<b>SMT 925 SPECIAL</b>		●	●	●							●	●			
<b>SMT 926 SPECIAL</b>		●	●	●							●	●			
<b>SMT 996 SPECIAL</b>			●	●						●					
<b>SMT 996 SPECIAL</b>			●	●							●	●			

● = main application ○ = possible application



# Abrasive flap discs

## Applications guide

### 1. Red bar

Label indicates the max. peripheral speed of 80 m/s

### 2. Safety recommendations

oSa label

### 3. Dimensions

Product dimensions in mm and inches

### 4. Punch ring

Manufacturer information, no expiry date

### 5. Grit size

### 6. Cat. number

### 7. Safety recommendations

Language neutral pictograms

### 8. Product group

Extra/Supra/Special

### 9. Product name

Type



## Product groups

Klingspor offers three integrated product groups. For each user and application we offer the right abrasive mop disc. All abrasive mop discs are manufactured according to the applicable standards and guarantee the highest degree of safety.



### EXTRA

Ideal price-performance ratio for universal implementation. Excellent grinding results on different steel materials.



### SUPRA

Professional products with excellent service life and high stock removal rate. Aggressive grinding and long service life.



### SPECIAL

High performance products for special industrial and trade applications. High performance and service life even when used intensively.

## Product structure

The three abrasive mop disc components are perfectly integrated to achieve maximum performance.

### 1. Grinding flaps

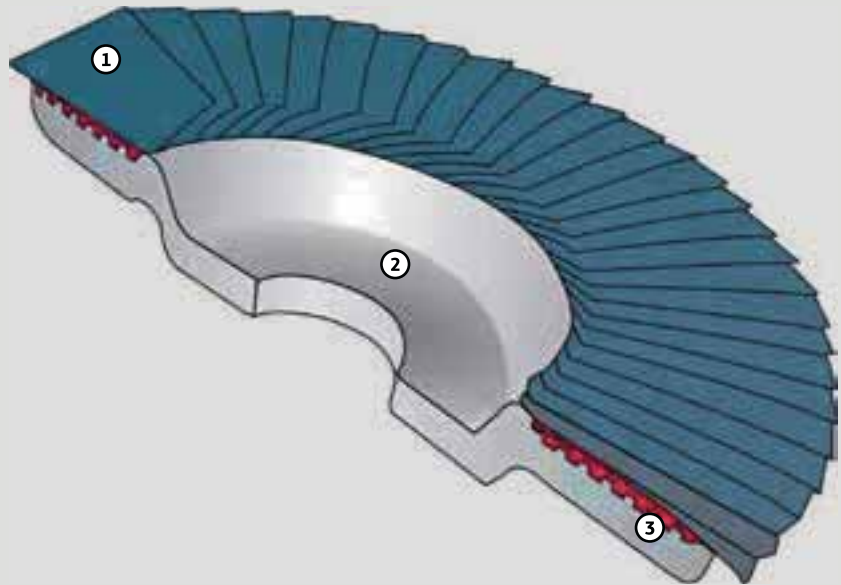
Klingspor has developed special coated abrasives for its abrasive mop discs. The grinding tool is perfect for use with high speed angle grinders (80 m/s) and corresponding applications. This ensures top grinding performance and long service life.

### 2. Backing plate

Klingspor uses two different backing plate types to produce abrasive mop discs. The first one is the most popular on the market made of glass fibre; the second one is made of plastic.

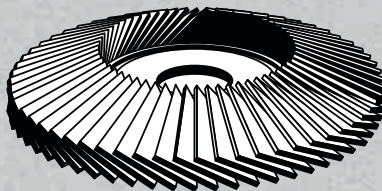
### 3. Glue

The glue (adhesive) is the joint between the backing plate and the grinding flaps. It ensures that the grinding flaps cannot come off the backing plate if used properly. It also ensures safety far above the guidelines of the oSa directives and the EN 13743 safety standard.

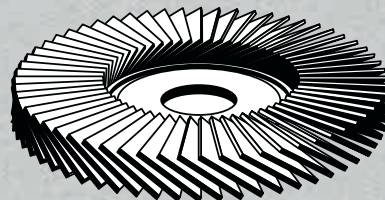


## Form

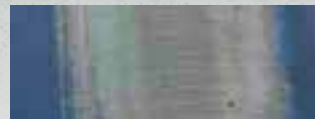
The convex abrasive mop disc grinds a narrower surface than the flat abrasive mop disc. The more selective use of the convex disc achieves a greater stock removal rate per time unit as compared to the flat mop disc. The convex abrasive mop disc is particularly suited to working on edges and welded seams. The flat disc is primarily used for flat and surface grinding.



convex



flat



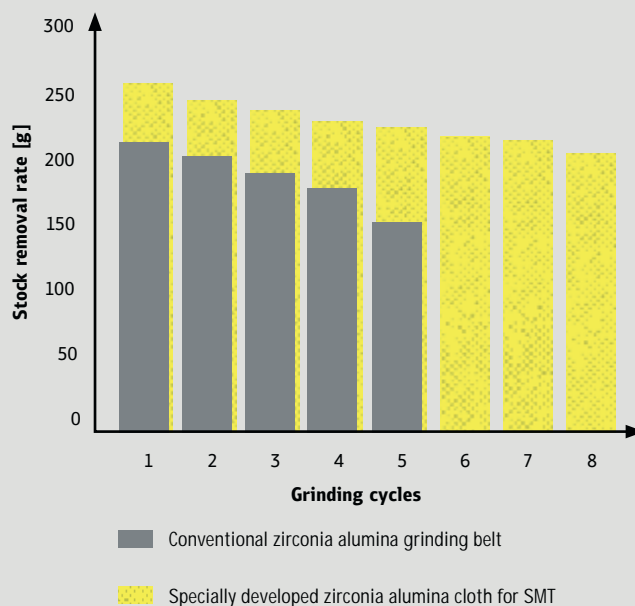


# Abrasive flap discs

## Applications guide

### Coated abrasives

Compared to belt applications the coated abrasives for abrasive mop discs withstand much higher loads. On the one hand, the cutting speed of abrasive mop discs is approximately 2 to 2.5 times faster than the cutting rate of a belt application, on the other hand the backing must wear down to ensure that new, unused grit is used. Klingspor has developed special coated abrasives specifically for this product group. These are developed specifically for high powered angle grinders (80 m/s) and ensures a top grinding performance and long service life (see diagram).



#### 1. Zirconia alumina cloth

Zirconia alumina grit, heavy cotton polyester cloth, best performance with high power machines

#### 2. Zirconia alumina cloth

Aggressive zirconia alumina grit, cotton cloth, good stock removal with angle grinders of all performance classes

#### 3. Zirconia alumina + Multibond

Self-sharpening zirconia alumina grit, cotton backing, especially for cool grinding on stainless steel

#### 4. Aluminium oxide cloth

Durable grit aluminium oxide, cotton cloth, for use with metal and NF-metals

#### 5. Ceramic aluminium oxide + Multibond

Ceramic high performance grit, robust polyester backing high performance for stainless steel work, cool grinding on stainless steel surfaces

#### 6. Ceramic aluminium oxide

Ceramic high performance grit, robust polyester backing, high performance for steel work



### The safe use of Klingspor abrasives

Klingspor abrasive mop discs are manufactured according to the oSa and EN13743 standards, this ensures the highest level of user safety.



Wear safety goggles or glasses to protect the eyes



Wear safety gloves to protect hands



Wear a dust mask



Observe safety instructions



Use ear protectors



Do not use for wet grinding



Correctly mounted



Incorrectly mounted

Abrasive flap disc

**SMT 624**  
**SUPRA**



Class	SUPRA
Aggression	■■■■■□
Service life	■■■■■□□

Applications:	
Stainless steel	●
Steel	●























Properties	
Grain	Zirconia alumina
Backing plate	Glass fibre
Design	Convex 12°



**Advantages:** Aggressive stock removal rate and comfortable grinding behaviour - For universal use in demanding grinding work on steel and stainless steel - Optimal removal rate when used on high power angle grinders

Available grits:

16	24	30	36	40	50	60	80	100	120	150	180	220	240	280	320	360	400	500	600	800	1000	1200	1500	2000	2500	3000
----	----	----	----	----	----	----	----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	------	------	------	------	------	------

Diameter x Bore in mm	Form	Grit	Max. operating speed	Max. RPM	Packing unit/pcs.	Cat. number
100 x 16		36	80 m/s	15300 rpm	10	322758
100 x 16		40	80 m/s	15300 rpm	10	322759
100 x 16		60	80 m/s	15300 rpm	10	322760
100 x 16		80	80 m/s	15300 rpm	10	322761
100 x 16		120	80 m/s	15300 rpm	10	322762
115 x 22,23		36	80 m/s	13300 rpm	10	322764
115 x 22,23		40	80 m/s	13300 rpm	10	322765
115 x 22,23		60	80 m/s	13300 rpm	10	322767
115 x 22,23		80	80 m/s	13300 rpm	10	322768
115 x 22,23		120	80 m/s	13300 rpm	10	322769
125 x 22,23		36	80 m/s	12200 rpm	10	322771
125 x 22,23		40	80 m/s	12200 rpm	10	322772
125 x 22,23		60	80 m/s	12200 rpm	10	322774
125 x 22,23		80	80 m/s	12200 rpm	10	322775
125 x 22,23		120	80 m/s	12200 rpm	10	322776
180 x 22,23		36	80 m/s	8500 rpm	10	322782
180 x 22,23		40	80 m/s	8500 rpm	10	322783
180 x 22,23		60	80 m/s	8500 rpm	10	322785
180 x 22,23		80	80 m/s	8500 rpm	10	322786
180 x 22,23		120	80 m/s	8500 rpm	10	322787

## Abrasive flap discs

Abrasive flap disc

### SMT 626 SUPRA



<b>Class</b>	SUPRA
<b>Aggression</b>	■■■■■■■□
<b>Service life</b>	■■■■■■■□

<b>Applications:</b>	
Stainless steel	●
Steel	●



<b>Properties</b>	
Grain	Zirconia alumina
Backing plate	Glass fibre
Design	Convex 6°

**Advantages:** High material removal rates - Considerably longer service life due to unique flap angle

Available grits:

16	24	30	36	40	50	60	80	100	120	150	180	220	240	280	320	360	400	500	600	800	1000	1200	1500	2000	2500	3000
----	----	----	----	----	----	----	----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	------	------	------	------	------	------

Diameter x Bore in mm	Form	Grit	Max. operating speed	Max. RPM	Packing unit/pcs.	Cat. number
125 x 22,23		40	80 m/s	12200 rpm	10	321690
125 x 22,23		60	80 m/s	12200 rpm	10	321695
125 x 22,23		80	80 m/s	12200 rpm	10	321698
125 x 22,23		120	80 m/s	12200 rpm	10	321684

**CEVOLUTION**

Abrasive flap disc CEVOLUTION

### SMT 974 SPECIAL



<b>Class</b>	SPECIAL
<b>Aggression</b>	■■■■■■■
<b>Service life</b>	■■■■■■■

<b>Applications:</b>	
Steel	●
Stainless steel	○



<b>Properties</b>	
Grain	Ceramic Al. oxide
Backing plate	Glass fibre
Design	Convex 6°

**NEW**

**Advantages:** Newly developed abrasive for demanding grinding tasks in the steel sector - Optimal tool for edge and weld seam finishing - Highly economical on powerful angle grinders - The SMT 974 includes the new CEVOLUTION technology. CEVOLUTION stands for holistically optimized, ceramic abrasives. Klingspor products with CEVOLUTION technology contain, among others, an optimized grit mix, grit sizes and formulation in order to offer the maximum performance in every application.

Available grits:

16	24	30	36	40	50	60	80	100	120	150	180	220	240	280	320	360	400	500	600	800	1000	1200	1500	2000	2500	3000
----	----	----	----	----	----	----	----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	------	------	------	------	------	------

Diameter x Bore in mm	Form	Grit	Max. operating speed	Max. RPM	Packing unit/pcs.	Cat. number
125 x 22,23		40	80 m/s	12200 rpm	10	369280
125 x 22,23		60	80 m/s	12200 rpm	10	369279
125 x 22,23		80	80 m/s	12200 rpm	10	369278



Abrasive flap disc CEVOLUTION

### SMT 975 SPECIAL



Class	SPECIAL
Aggression	■■■■■■■■
Service life	■■■■■■■■



Applications:	
Steel	●
Stainless steel	○

Properties	
Grain	Ceramic Al. oxide
Backing plate	Plastic, glass-fibre reinforced
Design	Convex 6°

NEW

**Advantages:** High and fast stock removal due to newly developed abrasive with self-sharpening ceramic grain - Easy mounting due to integrated M14 thread - Very long tool life due to trimable backing plate - The SMT 975 includes the new CEVOLUTION technology. CEVOLUTION stands for holistically optimized, ceramic abrasives. Klingspor products with CEVOLUTION technology contain, among others, an optimized grit mix, grit sizes and formulation in order to offer the maximum performance in every application.

Available grits:

16	24	30	36	40	50	60	80	100	120	150	180	220	240	280	320	360	400	500	600	800	1000	1200	1500	2000	2500	3000
----	----	----	----	----	----	----	----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	------	------	------	------	------	------

Diameter x Bore in mm	Form	Grit	Max. operating speed	Max. RPM	Packing unit/pcs.	Cat. number
125		40	80 m/s	12200 rpm	10	369301
125		60	80 m/s	12200 rpm	10	369303
125		80	80 m/s	12200 rpm	10	369304

Abrasive flap disc, multibond, CEVOLUTION

### SMT 976 SPECIAL



Class	SPECIAL
Aggression	■■■■■■■■
Service life	■■■■■■■■



Applications:	
Stainless steel	●
NF metals	○
Aluminium	○

Properties	
Grain	Ceramic aluminium oxide multibond
Backing plate	Glass fibre
Design	Convex 6°

NEW

**Advantages:** Newly developed abrasive for highest stock removal rates for stainless steel grinding tasks - Reduced grinding temperature due to multibond - Well suited for soft, smearing materials such as non-ferrous metals and aluminium - The SMT 976 includes the new CEVOLUTION technology. CEVOLUTION stands for holistically optimized, ceramic abrasives. Klingspor products with CEVOLUTION technology contain, among others, an optimized grit mix, grit sizes and formulation in order to offer the maximum performance in every application.

Available grits:

16	24	30	36	40	50	60	80	100	120	150	180	220	240	280	320	360	400	500	600	800	1000	1200	1500	2000	2500	3000
----	----	----	----	----	----	----	----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	------	------	------	------	------	------

Diameter x Bore in mm	Form	Grit	Max. operating speed	Max. RPM	Packing unit/pcs.	Cat. number
125 x 22,23		40	80 m/s	12200 rpm	10	369270
125 x 22,23		60	80 m/s	12200 rpm	10	369264
125 x 22,23		80	80 m/s	12200 rpm	10	369263



## Abrasive flap discs

**CEVOLUTION**

Mini abrasive flap disc

**MST 924**

**SPECIAL**



<b>Class</b>	<i>SPECIAL</i>
Aggression	■■■■■■■■
Service life	■■■■■■■■

<b>Applications:</b>	
Steel	●
Stainless steel	●



**NEW**



<b>Properties</b>	
Grain	Ceramic Al. oxide
Backing plate	Plastic, glass-fibre reinforced
Design	Convex 6°

**Advantages:** Aggressive stock removal due to self-sharpening ceramic grain - Ideal for working on hard-to-reach areas - For coarse grinding tasks on high alloy steels and stainless steel materials

Available grits:

16	24	30	36	40	50	60	80	100	120	150	180	220	240	280	320	360	400	500	600	800	1000	1200	1500	2000	2500	3000
----	----	----	----	----	----	----	----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	------	------	------	------	------	------

Diameter in mm	Form	Grit	Thread/Shaft	Max. operating speed	Max. RPM	Packing unit/pcs.	Cat. number
50		40	Quick Roll Connect	80 m/s	30000 rpm	10	365144
50		60	Quick Roll Connect	80 m/s	30000 rpm	10	365145
50		80	Quick Roll Connect	80 m/s	30000 rpm	10	365146
75		40	Quick Roll Connect	80 m/s	20000 rpm	10	365138
75		60	Quick Roll Connect	80 m/s	20000 rpm	10	365143
75		80	Quick Roll Connect	80 m/s	20000 rpm	10	365136

## Notes







# Kronenflex® cutting-off wheels and grinding discs

## About the product

As the inventor of the high speed cutting-off wheel, it is only natural that we strive to continually develop and improve our Kronenflex® products.

Kronenflex® cutting-off wheels and grinding discs feature an optimal combination of bonding agent and grain type for high aggressiveness, outstanding service life and consistently high quality. They comply with the highest safety standards, including the oSa regulations and the European safety standard EN 12413.

As a result of continuous innovations and the development of special products for diverse requirements, our Kronenflex® products offer the optimal solution for all standard materials and applications.

## Typical materials for these products

- ▶ Steel
- ▶ Stainless steel
- ▶ Construction steel
- ▶ NF metals
- ▶ Cast materials
- ▶ Stone
- ▶ Plastics
- ▶ Mineral materials
- ▶ Pipes
- ▶ Flat irons
- ▶ Tins
- ▶ Solid materials

## Typical applications for these products

- ▶ Bodywork
- ▶ Maintenance and repair work
- ▶ Locksmiths
- ▶ Steelwork
- ▶ Plant construction
- ▶ Container construction
- ▶ Upkeep
- ▶ Metal works
- ▶ Vehicle construction
- ▶ Foundries
- ▶ Shipyards

## Kronenflex® cutting-off wheels

Kronenflex® cutting-off wheels	Page
0,8–1,2 mm	124-126
Small cutting-off wheels	127
1,6–1,9 mm	128
2,0–3,2 mm	129-132
Large cutting-off wheels	133-135

## Kronenflex® grinding discs

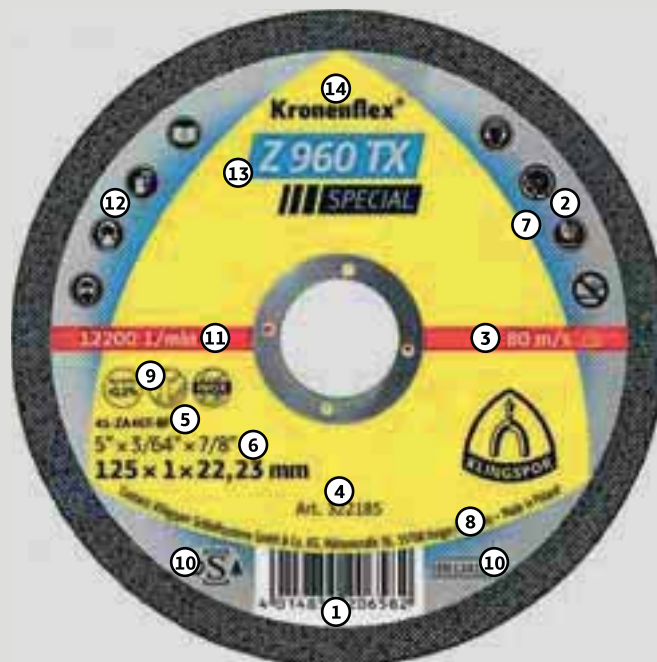
Kronenflex® grinding discs	Page
Grinding discs	138-141



# Kronenflex® cutting-off wheels and grinding discs

## Application guides

1. EAN code (EAN 13)
2. Safety pictograms
3. Max. operating speed
4. Klingspor cat. number
5. Specification of design, grade and bond according to EN 12413
6. Dimensions in mm and inches
7. Applications (see colour coding system)



8. Information about the manufacturer
9. Operating restrictions
10. Safety standard (oSa / EN 12413)
11. Max. RPM
12. Safety pictograms
13. Product group / type
14. Klingspor brand Kronenflex®

## Performance classes

Kronenflex® cutting-off wheels and grinding discs come in three performance classes with six colour codes for a quick overview of the most important material applications.



### EXTRA

Products for universal application, offering a particularly attractive price-performance ratio.



### SUPRA

Optimised products for different applications. Excellent service life and cutting performance.



### SPECIAL

High performance products for special applications. Highest service life and cutting performance in the respective material application area.

# Kronenflex® cutting-off wheels and grinding discs

## Application guides



### 1. Label and cover sheet

The label includes all of the important information on the product, manufacturer and information on the proper use of the grinding tool

### 2. Mixture

**The grit:** Today all grit types are only produced synthetically. Only grit produced synthetically can ensure continuously high wear and cutting disc quality.

**Resins and fillers:** Additional, important components for cutting and grinding discs are resins, (in liquid and dry form), and fillers. These components are key in determining the disc properties, such as stability, stock removal rate, sheer strength and can be adjusted to meet the needs of the specific application.



### 3. Metal ring

Provides information on the expiry date of the disc.

### 4. Glass fibre

Glass fibre is a reinforcing layer to ensure stability and increases the safety of the cutting-off wheel. The number and strength of the glass fibre layers is dependent upon the disc type and application. The higher the potential lateral load on a cutting-off wheel (it is greater during free cutting than during stationary cutting), the more glass fibre that the cutting disc must contain, or the contained glass fibre must be more stable. Particularly thin material is used for thin cutting discs, (0.8 mm to 1.0 mm), to ensure that a large grit ratio is achieved between the layers. Grinding discs are constructed with at least 3 glass fibre layers.

## Klingspor cutting-off wheel and grinding disc colour coding system

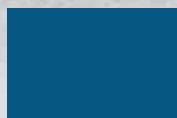
**Metal universal**

Grey



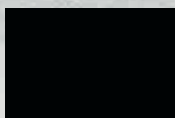
**Stainless steel**

Blue



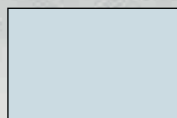
**Steel**

Black



**Aluminium**

Silver



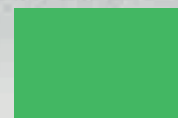
**Castings**

Red



**Stone/ concrete**

Green



## Pictograms on the product pages



One glass fibre cloth



Two glass fibre cloths



Free of iron, sulphur and chloride



Packaged in units of 25 pcs each in the Kronenflex® tub for consistently high performance and protection from moisture

# Kronenflex® cutting-off wheels and grinding discs

## Application guides



Quarter	
V 01	January-March
V 04	April-June
V 07	July-September
V 10	October-December

## Safety and storage

The shelf life of cutting-off wheels and grinding discs is primarily determined by their moisture content. Cutting-off wheels and grinding discs that are subjected to increased humidity after they were manufactured lose their original service life. Correct storage ensures a consistent long service life. Cutting-off wheels and grinding discs that are subjected to water or steam are a safety risk. The user is obligated to use the product correctly. Cutting-off wheels and grinding discs should not be used past the expiry date.

## Working safely

### By being careful and recognising risks

Please avoid the risks listed below when working with cutting-off wheels and grinding discs.

- ▶ contact with rotating abrasive discs
- ▶ abrasive disc breakage
- ▶ grinding dust and debris
- ▶ vibration
- ▶ noise

### Through personal protective gear

Goggles, gloves, ear muffs and dust masks must be worn. When working on hard grinding applications additional protective gear is required, such as face protection, leather aprons and safety boots.

### With protective machine guards

Machine guards are supplied with the grinding machine and may not be changed or removed. When using cup grinding wheels the outer surface must be completely enclosed.

In addition, cup grinding wheels may only be used in combination with an adjustable wheel guard, to balance the wear on the disc and to keep the exposure of the disc at a minimum.

### Through visual inspection and performance of checks prior to mounting

Ensure the disc RPM matches the machine RPM setting and avoid exceeding the maximum admissible operating speed. Carefully check the cutting-off wheel and grinding disc for damage. If the cutting-off wheel or grinding disc is damaged, do not use the damaged product. Our cutting-off wheels and grinding discs are marked with the corresponding safety pictograms.

### Through correct use

Ensure that the respective disc is being used correctly. Avoid damage to the mounting bore or to the disc through jerks, excessive force, or falls. Ensure that the disc is correctly and securely mounted and use the correct mounting flange. Prior to starting work, the abrasive disc should run at operating speed for at least 30 seconds. Please observe the FEPA safety regulations and the European Standard 12413.

The peripheral speed and grinding pressure are important parameters for achieving optimal cutting-off and grinding disc results.



## The optimal speed

### Too low

If the RPM of the machine is too low, the cutting-off wheel and grinding disc tend to “jump”, and the disc edges wear down unevenly. Particularly with thin material cross sections, such as cutting tin or wire, this causes the grit to be separated from the bond and the disc wear speed is above average.

### Optimal

Klingspor cutting-off wheels and grinding discs are high performance products and were developed such that best disc performance (measured by the stock removal volume to disc wear ratio) is achieved in the range right below the maximum peripheral speed. Keep the machine running at a consistently high RPM and, if needed, select a more powerful machine.

### Too high

The maximum RPM and peripheral speed is printed on the label of each disc. For your own safety, please be sure not to exceed the recommended speeds when grinding.

## The correct grinding pressure

An important requirement for a satisfactory cutting result is the correct grinding pressure. A common mistake is to reduce the grinding pressure to preserve the disc and extend the cutting life of the wheel. If this is done, the material overheats (turns blue); the cutting-off wheel becomes clogged and “burns up”. This is why the grinding pressure should always be set such that the cutting time is as short as possible. This is particularly true for heat sensitive material with large material cross sections.

## The proper hardness

### Cutting-off wheels

Generally, the rule of thumb when selecting the correct cutting-off wheel is the harder the material, the softer the abrasive bond. The reason being the service life of a cutting-off wheel is dependent on whether the cutting surface of the workpiece hardens or not. Overheating results in the disc “glazing” and the cutting properties are negatively affected. In this case, the hardness of the bond should be decreased and a softer cutting-off wheel should be used.

### Grinding discs

The rule of thumb also applies to grinding discs; the harder the material, the softer the grinding disc bond. In addition, the application plays a decisive role. Corner grinding and the grinding of burrs and sharp edges can cause grit to be removed from the bond. We suggest the selection of a hard bond. On the other hand, when working on surfaces or small weld seams a disc that is too hard would become dull and would no longer be effective. It would have a good service life, but would also have a low stock removal rate and high work costs. A medium or soft disc bond would be best for finish grinding.

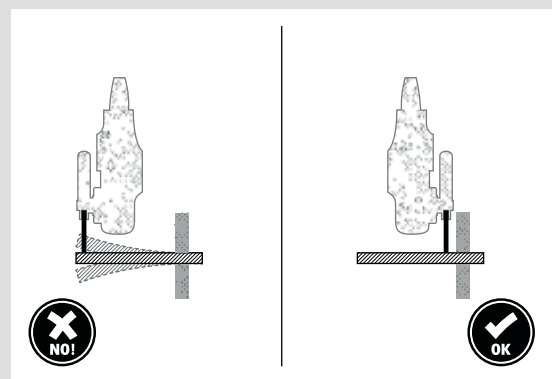
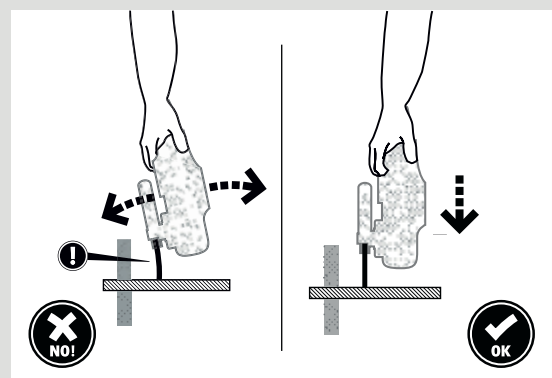
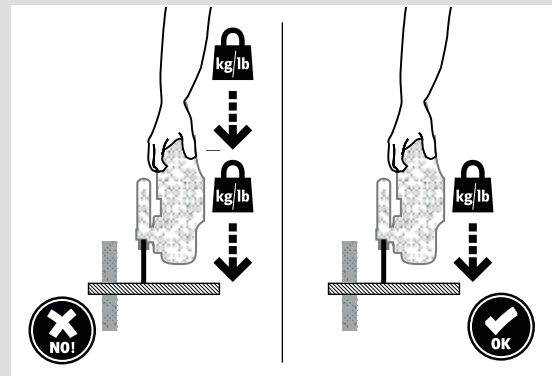


# Kronenflex® cutting-off wheels and grinding discs

## Application guides

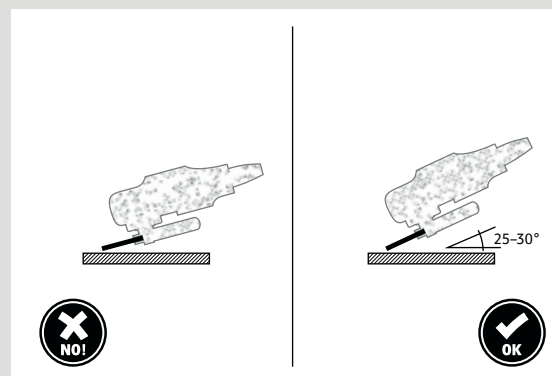
### Correct application/techniques for cutting-off

Pressure may only be placed on the cutting-off wheel from a radial direction. This is the only way to avoid wobbling, buckling and disc breakage, especially when applying a high level of cutting pressure. The workpiece that is to be cut-off should be properly affixed to the workbench to ensure that the disc does not slide off to the side. In addition, we recommend that the material is affixed as close to the cutting site as possible to ensure that it does not vibrate, flutter or slip to the side.



### Correct application/techniques for grinding

Grinding discs work best at 35 degree angle to the workpiece. This angle provides the best stock removal to disc wear ratio. If possible, always select this angle. When grinding and the angle is below 15° a very thin edge which levels off is formed around the circumference of the disc. Even minimal changes to the angle can result in a situation in which the grinding pressure can no longer be absorbed resulting in the grinding disc slipping to the side. Valuable grit is not used and an imbalance is created that results in having to replace the disc prematurely.



## The correct mount

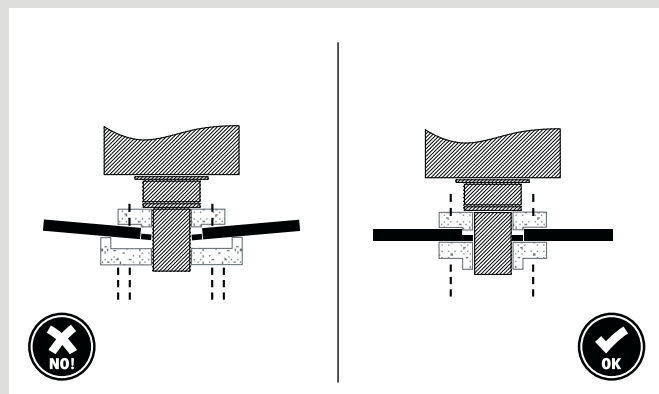
### For better power transmission

Cutting-off wheels and grinding discs are mounted to the machine with side flanges. The flange elements are responsible for transferring power to the disc. For reasons of safety it is extremely important that defective or incorrect flanges are not used.

### For more safety

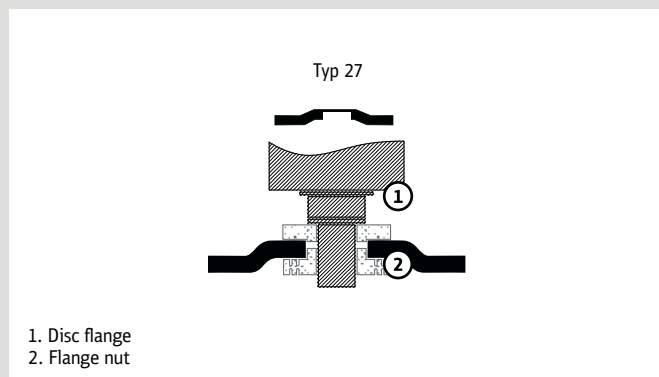
The use of wheel flange FL 76 provides increased lateral stability and user control, specifically when using thin cutting-off wheels with a flat form and diameter of 180 mm and 230 mm.

The applicable regulations and standards must be complied with when using the wheel flange. The contact surface and diameter of the wheel flange must match. Using wheel flanges with diameters that do not match is prohibited.



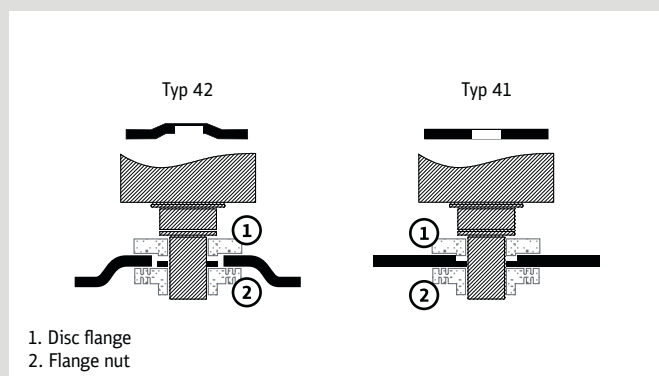
## Depressed centre grinding discs

4 - 10 mm thickness



## Flat and depressed centre cutting-off wheels

0.8 - 4 mm thickness



# Kronenflex® cutting-off wheels and grinding discs

## Application guides

### Recognise and avoid errors

	Issue	Possible cause	Solution
Cutting-off wheels	Cutting surface is blue	Cutting time is too long	Increase feed speed or grinding pressure
		Drive power is too low	Use a more powerful machine
		Disc is too hard	Select a softer bond
		Material cross section is too great for the disc diameter	Work with a saw cut / work with a smaller material diameter
		Cutting disc is too wide for the material/application	Use a thinner cutting disc
	Disc wear is too high	White cutting surface: disc hardness is too low	Select a harder bond
		Peripheral speed is too low	Increase peripheral speed
		RPM decrease is too great	Reduce grinding pressure or use a more powerful machine
	Crooked cut	Workpiece is not mounted properly	Mount the material closer to the cutting site
		Grinding pressure is too great	Reduce grinding pressure
		Disc width is too thin for the material/application	Increase disc width
		Disc is completely worn down	Replace disc
	Disc breakage	Machine is operated incorrectly	Avoid lateral pressure on the disc
		Incorrect wheel flange diameter	Use wheel flange with identical diameters
		Cutting-off wheel is used for grinding	Cutting-off wheels may not be used for grinding
	Disc periphery is frayed	Material is not properly affixed	Mount the material closer to the cutting site
		Disc periphery is burned	Select a softer bond, decrease grinding pressure
		Material is not properly affixed	Mount the material closer to the cutting site
	Disc jumps	Wheel flange is dirty or worn out	Clean wheel flange or replace wheel flange
		Bearing is defective	Replace machine or replace bearing
		Bore dimension and mount do not match	Use proper bore dimension or use a reducer ring
	Bore hole is broken	Wheel flanges are of different sizes	Use wheel flanges that have the same diameters
		Machine is operated incorrectly	Reduce lateral pressure on the disc
		Cutting-off wheel is used for grinding	Cutting-off wheels may not be used for grinding
	Issue	Possible cause	Solution
Grinding discs	Removal rate is too low	Shiny contact surface: bond is too hard	Select a softer bond
		Grinding pressure is too low	Increase grinding pressure
		Machine performance is too low	Use a more powerful machine
	Disc is loaded/clogged	Bond is too hard	Select a softer bond
		Loading/clogging with NF metals	Use softer bond or select a special cutting-off wheel for NF metals
		Grinding pressure is too low	Increase grinding pressure
	Wear is too high	Grinding pressure is too high	Reduce grinding pressure
		Bond is too soft	Select a harder bond
		Machine RPM decreases too quickly	Reduce grinding pressure
		Machine performance is too low	Use a more powerful machine
	Periphery is not rounded / breakage on the edge	Disc angle is too flat	Increase disc angle (at least 25°)
		Grinding pressure is too high	Reduce grinding pressure
	Disc wobbles	The mount is not centred	Check bore diameter and mounting diameter and adjust accordingly
		Mounting shaft is worn	Replace machine
		Mounting flange is worn / dirty / incorrect	Replace / clean mounting flange / check dimensions
		Disc wobbles	Use a new disc

## What the type designation reveals about the design of cutting-off wheels and grinding discs

The type designation given on a cutting-off wheel or grinding disc divulges more than just the name of the product. It provides important information on the performance class and on the composition of the tool. The first letter indicates which abrasive grit is used. If this letter is followed by a three digit number, the first digit signifies the performance class (the performance class is also included below the name of the product). The last two digits point to the size of the grit that was used. The letters at the end of the type designation mark the hardness grade of a cutting-off wheel or grinding disc.

Grit type	Performance class	Grit size according to FEPA standard	Hardness	Performance class
<b>A</b> Aluminium oxide	<b>3</b> <b>/// EXTRA</b>	<b>16</b>	<b>M</b> soft	<b>/// EXTRA</b>
<b>C</b> Silicon carbide	<b>6</b> <b>/// SUPRA</b>	<b>24</b>	<b>N</b>	<b>/// SUPRA</b>
<b>Z</b> Zirconia alumina	<b>9</b> <b>/// SPECIAL</b>	<b>30</b>	<b>R</b>	<b>/// SPECIAL</b>
		<b>36</b>	<b>S</b>	
		<b>46</b>	<b>T</b> hard	
		<b>60</b>		
		<b>80</b>		

Explained by example of the Z 960 TX cutting-off wheel

Grit type	Performance class	Grit size according to FEPA standard	Hardness	Performance class
<b>Z</b> Zirconia alumina	<b>9</b> <b>/// SPECIAL</b>	<b>60</b>	<b>TX</b> hard	<b>/// SPECIAL</b>

## The safe use of Klingspor abrasives

Klingspor Kronenflex® cutting-off wheels and grinding discs are manufactured in accordance with the oSa and EN 12413 standards, this ensures the highest level of user safety.



Wear safety goggles or glasses to protect the eyes



Wear safety gloves to protect hands



Wear dust mask



Observe safety instructions



Use ear protectors



Do not use for wet grinding



Not permitted for grinding



Do not use if damaged

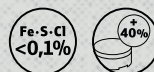


# Kronenflex® cutting-off wheels 0,8 - 1,2 mm

for angle grinders

Cutting-off wheel

## A 980 TZ SPECIAL



Class	SPECIAL
Bond	■■■■■□
Aggression	■■■■■□
Service life	■■■■■□

Applications:	
Stainless steel	●
Steel	●
NF metals	●

**Advantages:** Free of iron, sulfur and chlorine - Very short cutting times - Very precise and clean cuts - Low thermal load - Minimal burr formation, minimizing finish-machining - 25 pieces delivered in the Kronenflex® box for long-lasting high-performance and moisture protection

Diameter x Width x Bore in mm	Form	Max. operating speed	Max. RPM	Packing unit/pcs.	Cat. number
125 x 0,8 x 22,23		80 m/s	12200 rpm	25	322183

Cutting-off wheel

## A 60 N SUPRA



Class	SUPRA
Bond	■■■□□□
Aggression	■■■■■□
Service life	■■■■■□

Applications:	
Aluminium	●
Steel	●

**Advantages:** Special combination prevents smearing and clogging - Minimal burr formation

Diameter x Width x Bore in mm	Form	Max. operating speed	Max. RPM	Packing unit/pcs.	Cat. number
115 x 1 x 22,23		80 m/s	13300 rpm	25	264297
125 x 1 x 22,23		80 m/s	12200 rpm	25	264298

# Kronenflex® cutting-off wheels 0,8 - 1,2 mm for angle grinders



Cutting-off wheel

## A 60 TZ SPECIAL



Class	SPECIAL
Bond	■■■■■■■□
Aggression	■■■■■■■□
Service life	■■■■■■■□

Applications:	
Stainless steel	●
Steel	●
NF metals	○

**Advantages:** Free of iron, sulfur and chlorine - Short cutting times - Minimal burr formation - Low thermal load



Diameter x Width x Bore in mm	Form	Max. operating speed	Max. RPM	Packing unit/pcs.	Cat. number
100 x 1 x 16	—	80 m/s	15300 rpm	25	202402
115 x 1 x 22,23	—	80 m/s	13300 rpm	25	202400
125 x 1 x 22,23	—	80 m/s	12200 rpm	25	202401

Cutting-off wheel

## A 960 TZ SPECIAL



Class	SPECIAL
Bond	■■■■■■■
Aggression	■■■■■■■□
Service life	■■■■■■■

Applications:	
Stainless steel	●
Steel	●

**Advantages:** Free of iron, sulphur and chlorine - Short cutting times and long service life - Low thermal load - Low burr formation - Optimized bonding for considerably longer service life - For diverse applications - 25 pieces delivered in the Kronenflex® box for long lasting high performance and moisture protection



Diameter x Width x Bore in mm	Form	Max. operating speed	Max. RPM	Packing unit/pcs.	Cat. number
125 x 1 x 22,23	—	80 m/s	12200 rpm	25	322181

# Kronenflex® cutting-off wheels 0,8 - 1,2 mm

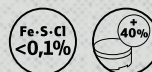
for angle grinders

Cutting-off wheel

## Z 960 TX SPECIAL



Class	SPECIAL
Bond	■■■■■■■■
Aggression	■■■■■■■■
Service life	■■■■■■■■



Applications:	
Stainless steel	●
Alloys	●
Carbon steel	●
Titanium	●

## ZIRCONIUM



**Advantages:** Free of iron, sulphur and chlorine - Ideal for tough/hard materials such as titanium and high alloy steels - Short cutting times and long service life due to self-sharpening zirconia alumina - Low thermal load - Low burr formation - 25 pieces delivered in the Kronenflex® box for long lasting high performance and moisture protection

Diameter x Width x Bore in mm	Form	Max. operating speed	Max. RPM	Packing unit/pcs.	Cat. number
125 x 1 x 22,23		80 m/s	12200 rpm	25	322185

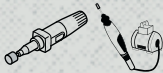
# Kronenflex® small cutting-off wheel

for hand held machines



Small cutting-off wheel

## A 660 R SUPRA



Class	SUPRA				
Bond	■	■	■	■	□
Aggression	■	■	■	■	□
Service life	■	■	■	■	□

Applications:	
Steel	●
Stainless steel	●

**Advantages:** Minimal burr formation - For universal use in hard-to-reach areas - For cutting tins, profiles and solid materials

Diameter x Width x Bore in mm	Form	Max. operating speed	Max. RPM	Packing unit/pcs.	Cat. number
50 x 1 x 6	—	80 m/s	30600 rpm	40	368881
76 x 1 x 6	—	80 m/s	20100 rpm	40	368880
76 x 1 x 10	—	80 m/s	20100 rpm	40	368879

Fixing spindle

## SD 660



**Advantages:** Fixing spindle for clamping on the small A 660 R cutting blades onto straight grinders, flexible shafts, and drilling machines - Fits 6 and 10 mm holes

Diameter in mm	Suitable for	Packing unit/pcs.	Cat. number
6	6 and 10 mm bore	1	337156



# Kronenflex® cutting-off wheels 1,6 - 1,9 mm

for angle grinders

Cutting-off wheel

**A 46 TZ**  
**SPECIAL**



<b>Class</b>	<i>SPECIAL</i>
Bond	■■■■■□
Aggression	■■■■■□
Service life	■■■■■□

<b>Applications:</b>	
Stainless steel	●
Steel	●



**Advantages:** Free of iron, sulphur and chlorine - Universal use on steel and stainless steel - First choice for professional applications and fast cutting of demanding materials

Diameter x Width x Bore in mm	Form	Max. operating speed	Max. RPM	Packing unit/pcs.	Cat. number
100 x 1,6 x 16	—	80 m/s	15300 rpm	25	194071
115 x 1,6 x 22,23	—	80 m/s	13300 rpm	25	187170
125 x 1,6 x 22,23	—	80 m/s	12200 rpm	25	187171
180 x 1,6 x 22,23	—	80 m/s	8500 rpm	25	221161
230 x 1,9 x 22,23	—	80 m/s	6600 rpm	25	224084
230 x 1,9 x 22,23	—	80 m/s	6600 rpm	25	265044

# Kronenflex® cutting-off wheels 2,0 - 3,2 mm for angle grinders



Cutting-off wheel

## A 24 EXTRA



Class	EXTRA
Bond	■ ■ ■ ■ □ □
Aggression	■ ■ ■ ■ □ □
Service life	■ ■ ■ ■ □ □

Applications:	
Metals	●



**Advantages:** Proven a million times over - Standard wheel with outstanding price-performance ratio - For universal use in metalworking - Fast cutting off of solid material

Diameter x Width x Bore in mm	Form	Max. operating speed	Max. RPM	Packing unit/pcs.	Cat. number
115 x 2,5 x 22,23	—	80 m/s	13300 rpm	25	242137
125 x 2,5 x 22,23	—	80 m/s	12200 rpm	25	328771
125 x 2,5 x 22,23	—	80 m/s	12200 rpm	25	328774
180 x 3 x 22,23	—	80 m/s	8500 rpm	25	328765
230 x 3 x 22,23	—	80 m/s	6600 rpm	25	328761
230 x 3 x 22,23	—	80 m/s	6600 rpm	25	328763

Cutting-off wheel

## A 24 R SUPRA



Class	SUPRA
Bond	■ ■ ■ ■ □ □
Aggression	■ ■ ■ ■ □ □
Service life	■ ■ ■ ■ □ □

Applications:	
Steel	●
Stainless steel	○
Castings	○



**Advantages:** Optimized combination for use on steel - Can be used on stainless steel - Good cutting properties

Diameter x Width x Bore in mm	Form	Max. operating speed	Max. RPM	Packing unit/pcs.	Cat. number
100 x 2,5 x 16	—	80 m/s	15300 rpm	25	70467
115 x 2,5 x 22,23	—	80 m/s	13300 rpm	25	13297
125 x 2,5 x 22,23	—	80 m/s	12200 rpm	25	328772
180 x 3 x 22,23	—	80 m/s	8500 rpm	25	328766
230 x 3 x 22,23	—	80 m/s	6600 rpm	25	328762

# Kronenflex® cutting-off wheels 2,0 - 3,2 mm for angle grinders

Cutting-off wheel

## A 24 N SUPRA



Class	SUPRA
Bond	■ ■ ■ ■ □ □ □ □
Aggression	■ ■ ■ ■ ■ □ □
Service life	■ ■ ■ ■ ■ □ □

Applications:	
Stainless steel	●
Aluminium	○

**Advantages:** Special recipe prevents smearing and clogging - High removal rate on stainless steel due to hardened aluminium oxide

Diameter x Width x Bore in mm	Form	Max. operating speed	Max. RPM	Packing unit/pcs.	Cat. number
125 x 2,5 x 22,23		80 m/s	12200 rpm	25	2951
230 x 3 x 22,23		80 m/s	6600 rpm	25	13477

Cutting-off wheel

## A 36 R SUPRA



Class	SUPRA
Bond	■ ■ ■ ■ □ □ □ □
Aggression	■ ■ ■ ■ ■ □
Service life	■ ■ ■ ■ ■ □

Applications:	
Stainless steel	●

**Advantages:** Excellent cutting performance - Optimized aggression and service life

Diameter x Width x Bore in mm	Form	Max. operating speed	Max. RPM	Packing unit/pcs.	Cat. number
125 x 2 x 22,23		80 m/s	12200 rpm	25	126849
180 x 2,5 x 22,23		80 m/s	8500 rpm	25	123209
230 x 2,5 x 22,23		80 m/s	6600 rpm	25	123833

# Kronenflex® cutting-off wheels 2,0 - 3,2 mm for angle grinders



Cutting-off wheel

## A 46 N SUPRA



Class	SUPRA
Bond	■ ■ ■ ■ □ □ □ □
Aggression	■ ■ ■ ■ ■ □ □ □
Service life	■ ■ ■ ■ ■ □ □ □

Applications:
Aluminium ●

**Advantages:** Special combination prevents smearing and clogging - Optimized cutting off performance on non-ferrous metals

Diameter x Width x Bore in mm	Form	Max. operating speed	Max. RPM	Packing unit/pcs.	Cat. number
230 x 3 x 22,23	—	80 m/s	6600 rpm	25	170710

Cutting-off wheel

## C 24 EXTRA



Class	EXTRA
Bond	■ ■ ■ ■ □ □ □ □
Aggression	■ ■ ■ ■ ■ □ □ □
Service life	■ ■ ■ ■ □ □ □ □

Applications:
Stone/Concrete ●

**Advantages:** Universal cutting-off wheel for all mineral materials - Wide application range due to sharp, coarse SiC grit

Diameter x Width x Bore in mm	Form	Max. operating speed	Max. RPM	Packing unit/pcs.	Cat. number
100 x 2,5 x 16	—	80 m/s	15300 rpm	25	188999
115 x 2,5 x 22,23	—	80 m/s	13300 rpm	25	242143
125 x 2,5 x 22,23	—	80 m/s	12200 rpm	25	242144
230 x 3 x 22,23	—	80 m/s	6600 rpm	25	13491



# Kronenflex® large cutting-off wheels

for petrol powered cutter / with clamping device

Cutting-off wheel

## A 924 R SPECIAL



Class	SPECIAL
Bond	■■■■■□□
Aggression	■■■■■□□
Service life	■■■■■□□

### Applications:

Steel	●
Stainless steel	○

**Advantages:** Optimised bond for use on steel, also can be used on stainless steel - For use on gas powered free-hand machines with a cutting speed of 100m/s - Free-hand cutting of pipes, rods, profiles and solid materials

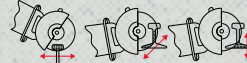
Diameter x Width x Bore in mm	Form	Max. operating speed	Max. RPM	Packing unit/pcs.	Cat. number
305 x 4 x 20	—	100 m/s	6400 rpm	10	354419
305 x 4 x 25,4	—	100 m/s	6400 rpm	10	354417
356 x 4 x 25,4	—	100 m/s	5500 rpm	10	354414

Cutting-off wheel

## A 624 SX SUPRA



Class	SUPRA
Bond	■■■■■□□
Aggression	■■■■■□□
Service life	■■■■■□□



### Applications:

Steel	●
-------	---

**Advantages:** For universal use on all rail types - Top performing product for lower powered machines (<5kW) and hard rails - Fast cutting, due to softer bond - For use on gas powered cutting-off machines with a cutting speed of 100 m/s and clamping device

Diameter x Width x Bore in mm	Form	Max. operating speed	Max. RPM	Packing unit/pcs.	Cat. number
356 x 4 x 25,4	—	100 m/s	5500 rpm	10	340641
406 x 4 x 25,4	—	100 m/s	4800 rpm	10	351436

# Kronenflex® large cutting-off wheels

for petrol powered cutter with clamping device / for stationary cutting



Cutting-off wheel

## A 924 SX SPECIAL



<b>Class</b>	<i>SPECIAL</i>
Bond	■ ■ ■ ■ ■ ■ ■ □
Aggression	■ ■ ■ ■ ■ ■ ■ ■
Service life	■ ■ ■ ■ ■ ■ ■ ■



<b>Applications:</b>	
Steel	●

**Advantages:** For universal use on all rail types - Top performing product for high powered machines (>5kW) and hard rails - For use on gas powered cutting-off machines with a cutting speed of 100 m/s and clamping device - Excellent service life

Diameter x Width x Bore in mm	Form	Max. operating speed	Max. RPM	Packing unit/pcs.	Cat. number
356 x 4 x 25,4	—	100 m/s	5500 rpm	10	353097
406 x 4 x 25,4	—	100 m/s	4800 rpm	10	352324

Cutting-off wheel

## A 24 R SUPRA



<b>Class</b>	<i>SUPRA</i>
Bond	■ ■ ■ ■ ■ ■ ■ □
Aggression	■ ■ ■ ■ ■ □ □ □
Service life	■ ■ ■ ■ ■ ■ ■ □

<b>Applications:</b>	
Steel	●
Stainless steel	○
Castings	○

**Advantages:** Optimized combination for use on steel - Can be used on stainless steel - Good cutting properties - Optimal for stationary 3 - 5 kW cutting-off machine

Diameter x Width x Bore in mm	Form	Max. operating speed	Max. RPM	Packing unit/pcs.	Cat. number
300 x 3 x 25,4	—	100 m/s	6400 rpm	10	6793
350 x 3,5 x 25,4	—	100 m/s	5500 rpm	10	13528
400 x 4,5 x 25,4	—	100 m/s	4800 rpm	10	292933

# Kronenflex® large cutting-off wheels

for chop saws

Cutting-off wheel

## A 630 N

### SUPRA



Class	SUPRA
Bond	■ ■ ■ ■ ■ □ □
Aggression	■ ■ ■ ■ ■ □
Service life	■ ■ ■ ■ ■ □

Applications:	
Steel	●
Stainless steel	○
Aluminium	○
Castings	○



**Advantages:** Aggressive model with an outstanding service life - An exceptional choice for the cutting of solid material - Bond optimized for universal use - Low thermal load - Minimum burr formation

Diameter x Width x Bore in mm	Form	Max. operating speed	Max. RPM	Packing unit/pcs.	Cat. number
300 x 2,5 x 25,4	—	80 m/s	5100 rpm	10	353325
356 x 2,5 x 25,4	—	80 m/s	4400 rpm	10	353324
406 x 3,2 x 25,4	—	80 m/s	3800 rpm	10	353328

Cutting-off wheel

## A 930 N

### SPECIAL



Class	SPECIAL
Bond	■ ■ ■ ■ ■ □
Aggression	■ ■ ■ ■ ■ ■
Service life	■ ■ ■ ■ ■ ■

Applications:	
Steel	●
Stainless steel	○
Aluminium	○
Castings	○



**Advantages:** Ultimate aggression and service life for universal use (pipes, profiles, solid material) - Low thermal load and minimum burr formation due to one glass fibre reinforcement mesh - An exceptional choice for 110 volt machines and the cutting of solid material

Diameter x Width x Bore in mm	Form	Max. operating speed	Max. RPM	Packing unit/pcs.	Cat. number
350 x 3 x 25,4	—	80 m/s	4400 rpm	10	322628







# Kronenflex® grinding discs

## About the product

Kronenflex® grinding discs are characterised by their permanent high level of attack and maximum stock removal. The optimum relationship between performance and service life is guaranteed up to the complete use of the disc.

Kronenflex® grinding discs are used in all major surface grinding applications, as well as for edge bevelling and burr removal. Klingspor offers professional advice in selecting the right grinding disc for your application.

From general metalworking to material-related applications in steel, stainless steel and NF metals, to the more specialised requirements of the nuclear industry, Klingspor has the products you need. Discs for stone grinding and cup grinding wheels round off our range.

Our engineers are standing by to help you, should you have specific problems or technical questions. You may take advantage of our technical consulting services whether at Klingspor or directly on site.

You will find important information on the label marking, product lines, design, safety and application of grinding discs starting on page 243.

## Practical tips

The rule of thumb also applies to grinding discs: the harder the material, the softer the bond of the grinding disc.

In addition, the application plays a very decisive role.

Corners and burrs have very sharp edges and easily tear the grit out of the bond. We recommend the use of a hard bond.

If on the other hand one is working on surfaces i.e. small welded seams, a disc that is too hard would easily become dull and no longer grip the material. The disc would achieve a good service life, but this would result in a low stock removal rate and high work costs.

For finish grinding the best disc bond is a medium or soft disc bond.

Type	Thickness [mm]	Material applications												
		Steel	Hardened steels	Tool steel	Stainless steel	High alloy steels	Corrosion and acid proof steels	Aluminium	Bronze	Copper	Brass	Zinc die-casting	Cast iron	Stone / concrete
<b>A 24 EXTRA</b>	6,0–8,0	●	○	○	○	○	○					○	○	
<b>A 24 EXTRA T</b>	6,0–8,0	●	○	○	○	○	○						○	
<b>A 24 R SUPRA</b>	4,0–10	●	●	●	○	○	○						○	
<b>A 24 R/01 SPECIAL</b>	4,0	●	●	●	○	○	○							
<b>A 24 N SUPRA INOX</b>	6,0–8,0	○	●	○	●	●	●							
<b>A 24 R/36 SPECIAL</b>	6,0	○	○	○	●	●	●							
<b>A 46 N SUPRA</b>	6,0–8,0							●	○	○	○	○		
<b>A 46 VZ SPECIAL</b>	2,0	○	○	●	●	●	●					○		
<b>A 624 T SUPRA</b>	6,0	●	●	●	●	○	○					○	●	
<b>C 24 R SUPRA</b>	6												○	●
<b>A 16 R SUPRA</b>	55	●											○	
<b>A 30 R SUPRA</b>	55	●												
<b>C 16 R SUPRA</b>	55												○	●
<b>C 30 R SUPRA</b>	55												○	●

● = main application    ○ = possible applications

# Kronenflex® grinding discs

Grinding disc

**A 24**  
**EXTRA**



<b>Class</b>	EXTRA
Bond	■ ■ ■ ■ □ □ □
Aggression	■ ■ ■ ■ □ □ □
Service life	■ ■ ■ ■ □ □ □

<b>Applications:</b>	
Metals	●



**Advantages:** Standard disc with excellent price-performance ratio - For universal use in metal-working - Excellent results on all standard angle grinders

Diameter x Width x Bore in mm	Form	Max. operating speed	Max. RPM	Packing unit/pcs.	Cat. number
100 x 6 x 16		80 m/s	15300 rpm	10	328786
115 x 6 x 22,23		80 m/s	13300 rpm	10	328781
125 x 6 x 22,23		80 m/s	12200 rpm	10	328782
180 x 6 x 22,23		80 m/s	8500 rpm	10	328783
230 x 6 x 22,23		80 m/s	6600 rpm	10	13447

Grinding disc

**A 24 R**  
**SUPRA**



<b>Class</b>	SUPRA
Bond	■ ■ ■ ■ □ □ □
Aggression	■ ■ ■ ■ □ □ □
Service life	■ ■ ■ ■ □ □ □

<b>Applications:</b>	
Steel	●
Stainless steel	○
Castings	○



**Advantages:** With optimised recipe for use on steel - Also suitable for use on stainless steel - Large product range

Diameter x Width x Bore in mm	Form	Max. operating speed	Max. RPM	Packing unit/pcs.	Cat. number
100 x 6 x 16		80 m/s	15300 rpm	10	6578
115 x 6 x 22,23		80 m/s	13300 rpm	10	13401
125 x 4 x 22,23		80 m/s	12200 rpm	10	240831
125 x 6 x 22,23		80 m/s	12200 rpm	10	13402
180 x 7 x 22,23		80 m/s	8500 rpm	10	13413
230 x 6 x 22,23		80 m/s	6600 rpm	10	13433



Grinding disc INOX





## A 24 N SUPRA



Class	SUPRA
Bond	■ ■ ■ ■ □ □ □ □
Aggression	■ ■ ■ ■ ■ □ □ □
Service life	■ ■ ■ ■ □ □ □ □

Applications:	
Stainless steel	●
Aluminium	○

**Advantages:** High removal rate on stainless steel - Optimal ratio between removal and wear

Diameter x Width x Bore in mm	Form	Max. operating speed	Max. RPM	Packing unit/pcs.	Cat. number
115 x 6 x 22,23		80 m/s	13300 rpm	10	2923
125 x 6 x 22,23		80 m/s	12200 rpm	10	2922
180 x 6 x 22,23		80 m/s	8500 rpm	10	13412
230 x 6 x 22,23		80 m/s	6600 rpm	10	13432

Grinding disc


## A 30 M SPECIAL



Class	SPECIAL
Bond	■ ■ ■ ■ □ □ □ □
Aggression	■ ■ ■ ■ ■ □ □ □
Service life	■ ■ ■ ■ □ □ □ □

Applications:	
Stainless steel	●
Steel	●

**Advantages:** Special wheel for the nuclear industry - Optimal ratio between removal and wear

Diameter x Width x Bore in mm	Form	Max. operating speed	Max. RPM	Packing unit/pcs.	Cat. number
125 x 6 x 22,23		80 m/s	12200 rpm	10	310900



# Kronenflex® grinding discs

Grinding disc

## A 46 N SUPRA



Class	SUPRA
Bond	■ ■ ■ ■ ■ ■ ■ ■
Aggression	■ ■ ■ ■ ■ ■ ■ ■
Service life	■ ■ ■ ■ ■ ■ ■ ■

Applications:	
Aluminium	●
NF metals	○

**Advantages:** No clogging when used on non-ferrous metals - Optimal ratio between removal and wear

Diameter x Width x Bore in mm	Form	Max. operating speed	Max. RPM	Packing unit/pcs.	Cat. number
125 x 6 x 22,23		80 m/s	12200 rpm	10	2226
180 x 6 x 22,23		80 m/s	8500 rpm	10	13410

Thin cutting-off wheel & grinding disc

## A 46 VZ SPECIAL



Class	SPECIAL
Bond	■ ■ ■ ■ ■ ■ ■ ■
Aggression	■ ■ ■ ■ ■ ■ ■ ■
Service life	■ ■ ■ ■ ■ ■ ■ ■

Applications:	
Stainless steel	●
Steel	●
NF metals	○

**Advantages:** Long service life - Multi-purpose: cutting off and light rough grinding with one wheel - High aggressiveness in cutting - No change of wheel necessary

Diameter x Width x Bore in mm	Form	Max. operating speed	Max. RPM	Packing unit/pcs.	Cat. number
125 x 2 x 22,23		80 m/s	12200 rpm	25	298177



Thin cutting-off wheel & grinding disc

TS 30 AP  
SPECIAL



Class	SPECIAL
Bond	■ ■ ■ ■ □ □ □
Aggression	■ ■ ■ ■ ■ □
Service life	■ ■ ■ ■ ■ □ □

Applications:	
Stainless steel	●
Steel	○

**Advantages:** Long service life - Multi-purpose: cutting off and light rough grinding with one wheel - High aggressiveness in cutting - No change of wheel necessary

Diameter x Width x Bore in mm	Form	Max. operating speed	Max. RPM	Packing unit/pcs.	Cat. number
125 x 3,5 x 22,23		80 m/s	12200 rpm	10	314459







# Diamond tools



Remain in full control of all processes: staying true to this motto, Klingspor managed to rise to be one of the world's first manufacturers of grinding and cutting tools. The company is now applying their extensive experience in research and development and manufacturing, their global network of distributors and their highly efficient service and logistics structure to their diamond tools.

Product	Machine	Application - Material	<b>SPECIAL</b>	<b>SUPRA</b>	<b>EXTRA</b>
Diamond cutting blades Ø 100 - 230 mm	Angle grinder	Universal	<b>DT 900 U</b>	<b>DT 600 U</b>	<b>DT 300 U</b>
				<b>DT 612 UT</b>	<b>DT 350 U</b>
			<b>DT 900 UD</b>		<b>DT 300 UT</b>
		Concrete	<b>DT 900 UT</b>		<b>DT 310 UT</b>
			<b>DT 900 B</b>		<b>DT 350 B</b>
					<b>DT 350 BT</b>
		Granite	<b>DT 900 G</b>		
				<b>DT 600 GU</b>	
		Tiles	<b>DT 900 FL</b>	<b>DT 600 F</b>	<b>DT 300 F</b>
			<b>DT 900 FT</b>		
Cup grinding wheels	Angle grinder	Mortar joints	<b>DT 900 FP</b>		
				<b>DN 600 U</b>	
		All Cut Metal		<b>DT 600 ACM</b>	
		All Cut Rescue	<b>DT 900 ACR</b>		
		Concrete		<b>DS 600 B</b>	<b>DS 300 B</b>
				<b>DS 600 S</b>	
Diamond cutting blades Ø 250 - 500 mm	Petrol powered cutter, Table saw, Joint cutter	Lime sandstone, screed and abrasive materials		<b>DS 600 A</b>	
		Adapter M14			<b>DZ 114</b>
		Epoxy resin, tile adhesive	<b>DS 900 PKD</b>	<b>DS 650 PKD</b>	
		Universal	<b>DT 900 U</b>	<b>DT 600 U</b>	<b>DT 300 U</b>
			<b>DT 900 US</b>	<b>DT 612 UT</b>	<b>DT 310 UT</b>
		Tiles			<b>DT 350 U</b>
			<b>DT 900 FL</b>	<b>DT 600 F</b>	<b>DT 300 F</b>
		All Cut Rescue	<b>DT 900 ACR</b>		
		Asphalt	<b>DT 902 A</b>	<b>DT 602 A</b>	<b>DT 350 A</b>
			<b>DT 910 A</b>	<b>DT 612 A</b>	
		Asphalt / concrete		<b>DT 612 AB</b>	<b>DT 350 AB</b>
		Green concrete	<b>DT 910 BF</b>		
		Concrete	<b>DT 900 B</b>	<b>DT 602 B</b>	<b>DT 350 B</b>
			<b>DT 902 B</b>		<b>DT 350 BT</b>
Drill bits	Drill stand	Concrete	<b>DT 910 B</b>		
				<b>DK 612 B</b>	
	Percussion drill	Concrete		<b>DK 654 B</b>	
			<b>DO 900 B</b>	<b>DE 600 B</b>	
	Drilling machine	Concrete		<b>DD 600 U</b>	
			Adapter kit		<b>ADS 200</b>
	Angle grinder	Tiles		<b>DB 600 F</b>	
		Hole starting aid		<b>DK 600 F</b>	
					<b>ABH 80</b>



### The three product lines

The right tool for every application: Klingspor diamond tools are available in three product lines that are colour-coded to provide the user with a quick overview of the most important materials for which the tools are suitable.



#### **SPECIAL**

**Product line 900** – High performance tools offering outstanding cutting performance and service life. For users who need their tools to perform at peak output and reliability even if subjected to the most punishing applications.



#### **SUPRA**

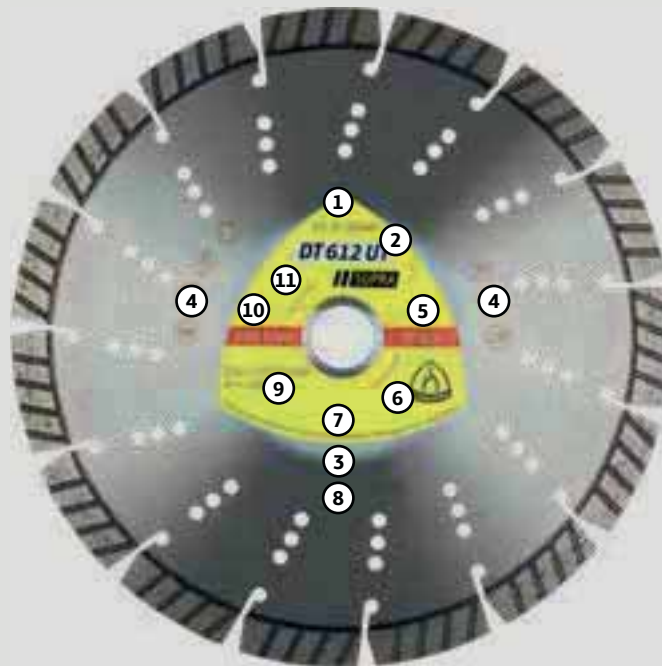
**Product line 600** – Professional tools with an exceptional price-performance ratio. For users who require diamond tools that deliver reliable and powerful performance every day.



#### **EXTRA**

**Product line 300** – Brand name quality at an affordable price. For users who expect their tools to meet professional standards, but do not need to use them continuously.

1. Klingspor cat. number
2. Product group / type
3. Applications
4. Safety pictograms
5. Max. operating speed
6. Klingspor logo

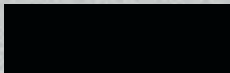


7. Information about the manufacturer
8. Safety standard
9. Dimensions in mm and inches
10. Max. RPM
11. Rotational direction

## Colour coding system of the Klingspor® diamond tools

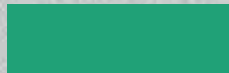
### Asphalt

Black



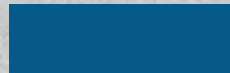
### Tiles

Green



### Stone / Fireproof

Blue



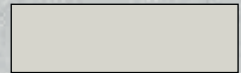
### Concrete

Red



### Universal

White



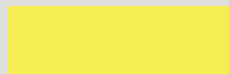
### Metal

Grey



### Special application

Yellow



## Pictograms on the product pages



Wet and dry applications



Wet applications



Dry applications



Tapered segment



Detenso steel core



Wet applications



Dry applications



Turbo segment



Drop segment



Inclined protective segment



Sandwich core



Set diamonds





1.

### Standard gullet

- ▶ rapid feed rate
- ▶ exceptional cutting properties



2.

### Turbo continuous rim

- ▶ exceptionally smooth operation
- ▶ clean cutting edges



3.

### Continuous rim

- ▶ clean cutting edges
- ▶ work with superior precision
- ▶ short cutting times



4.

### Turbo segments

- ▶ exceptionally smooth operation
- ▶ clean cutting edges
- ▶ fast cutting speed
- ▶ long service life



5.

### Short segments

- ▶ first-rate cutting performance
- ▶ clean cutting edges



6.

### Wide gullet

- ▶ high feed rate



7.

### Narrow gullet

- ▶ clean cut
- ▶ exceptionally smooth operation thanks to narrow segment spacings



8.

### Hammer segments

- ▶ prevent undercut and wear
- ▶ prevent segments tearing off
- ▶ optimal protection thanks to segments soldered in



9.

### Continuous rim with special geometry

- ▶ for extra clean cutting edges
- ▶ soft and comfortable cutting performance



10.

### Continuous rim with laser-cut slots

- ▶ for fine and clean cutting edges
- ▶ specially designed for ceramic and fine stoneware

## Number of revolutions

Diamond tools made by Klingspor are high performance products and have been engineered to reach their highest level of performance at a level immediately below their maximum peripheral surface speeds. The maximum permissible values for motor speed and operating speed are indicated on every diamond blade. The table

below contains all permissible maximum speeds as a function of the diameter and the maximum permissible operating speed of the diamond tools.

		Maximum operating speed [m/s]									
Ø [mm]		30	35	40	45	50	55	60	70	80	100
	200	2865	3342	3820	4297	4775	5252	5730	6685	7640	
	230	2491	2906	3322	3737	4152	4567	4982	5813	6643	
	250	2292	2674	3056	3438	3820	4202	4584	5348	6112	
	300	1910	2228	2547	2865	3183	3502	3820	4456	5093	6360
	350	1637	1910	2183	2456	2728	3001	3274	3820	4366	5450
	400	1432	1671	1910	2149	2387	2626	2865	3342	3820	4770
	450	1273	1485	1698	1910	2122	2334	2547	2971	3395	4240
	500	1146	1337	1528	1719	1910	2101	2292	2674	3056	3810
	550	1042	1215	1389	1563	1736	1910	2084	2431	2778	
	600	955	1114	1273	1432	1592	1751	1910	2228	2547	

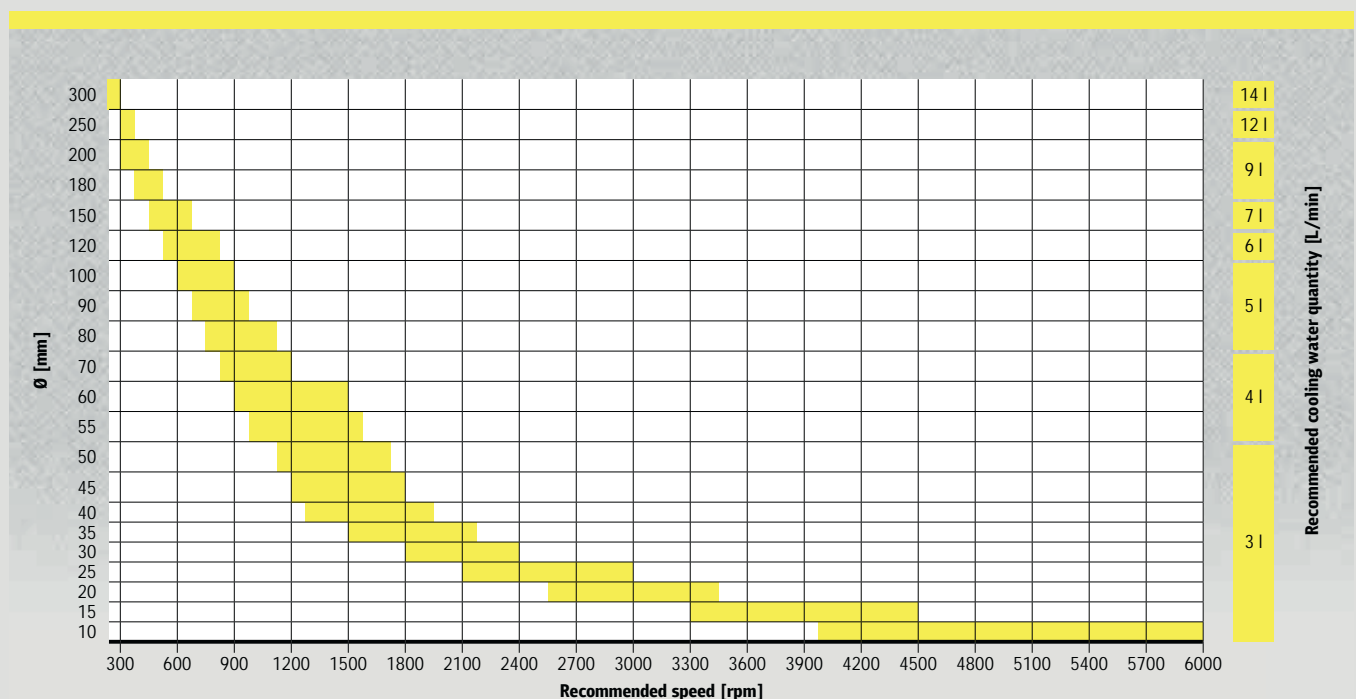
## Motor speeds and cooling water quantity

### The recommended speed range

The chart illustrates the ideal speed range for drill bits as a function of the diameter and the maximum permissible operating speed.

### Recommended cooling water quantity

Drill bits require cooling with water regardless of the material on which they are used. Refer to the right side of the table for the recommended quantity of cooling water.





# Diamond cutting blades for angle grinders

Diamond cutting blade

## DT 600 U SUPRA



### Properties

Design	Laser welded
Segmentation	Short segments
Aggression	■■■■■□□
Service life	■■■■□□□



### Applications:

Construction materials	●
Concrete, universal	●
Cured concrete, reinforced	●
Chalky sandstone	●

**Advantages:** Suitable for a various range of applications - First-rate cutting performance - Exceptional service life thanks to the use of premium grade raw materials and diamonds - Clean cutting edges

Diameter x Bore in mm	Max. operating speed	Max. RPM	Segment in mm Number / Length / Width / Height	Packing unit/pcs.	Cat. number
100 x 16	80 m/s	15300 rpm	11 / 20 / 2,4 / 9	1	325025
115 x 22,23	80 m/s	13300 rpm	13 / 20 / 2,4 / 9	1	322630
125 x 22,23	80 m/s	12200 rpm	15 / 20 / 2,4 / 9	1	322631
180 x 22,23	80 m/s	8500 rpm	22 / 20 / 2,6 / 9	1	322633
230 x 22,23	80 m/s	6600 rpm	30 / 20 / 2,6 / 9	1	322634

Diamond cutting blade

## DT 612 UT SUPRA



### Properties

Design	Laser welded
Segmentation	Turbo
Aggression	■■■■□□□
Service life	■■■■■□□



### Applications:

Construction materials	●
Concrete, universal	●
Cured concrete, reinforced	●
Chalky sandstone	●

**Advantages:** Special turbo segments for an extremely high cutting speed on almost all hard materials - Excellent service life even on reinforced concrete

Diameter x Bore in mm	Max. operating speed	Max. RPM	Segment in mm Number / Length / Width / Height	Packing unit/pcs.	Cat. number
115 x 22,23	80 m/s	13300 rpm	8 / 33 / 2,4 / 12	1	334044
125 x 22,23	80 m/s	12200 rpm	9 / 33 / 2,4 / 12	1	334045
180 x 22,23	80 m/s	8500 rpm	11 / 42 / 2,6 / 12	1	334046
230 x 22,23	80 m/s	6600 rpm	15 / 42 / 2,6 / 12	1	334047

# Diamond cutting blades for angle grinders



Diamond cutting blade

## DT 900 UT SPECIAL



### Properties

Design	Sintered
Segmentation	Turbo continuous rim
Aggression	■■■■■□
Service life	■■■■■□



### Applications:

Concrete, universal	●
Construction materials	●
Roof tiles	●

**Advantages:** Wave-shaped steel core - Use on construction material - Clean cutting edges - High aggressiveness

Diameter x Bore in mm	Max. operating speed	Max. RPM	Segment in mm Number / Length / Width / Height	Packing unit/pcs.	Cat. number
100 x 16 / 22,23	80 m/s	15300 rpm	CR / CR / 2,2 / 10	1	330626
115 x 22,23	80 m/s	13300 rpm	CR / CR / 2,2 / 10	1	325364
125 x 22,23	80 m/s	12200 rpm	CR / CR / 2,2 / 10	1	325365
180 x 22,23	80 m/s	8500 rpm	CR / CR / 2,5 / 10	1	325366
230 x 22,23	80 m/s	6600 rpm	CR / CR / 2,5 / 10	1	325367

Diamond cutting blade

## DT 600 F SUPRA



### Properties

Design	Sintered
Segmentation	Continuous rim
Aggression	■■■■□□
Service life	■■■■□□



### Applications:

Stoneware	●
Stove tiles	●
Stove tiles, glazed	●

**Advantages:** Professional wheel for tiles and feldspat - For precision working - Short cutting-off times - Clean edges

Diameter x Bore in mm	Max. operating speed	Max. RPM	Segment in mm Number / Length / Width / Height	Packing unit/pcs.	Cat. number
100 x 16 / 22,23	80 m/s	15300 rpm	CR / CR / 1,6 / 7	1	330624
115 x 22,23	80 m/s	13300 rpm	CR / CR / 1,6 / 7	1	325368
125 x 22,23	80 m/s	12200 rpm	CR / CR / 1,6 / 7	1	325369
180 x 22,23	80 m/s	8500 rpm	CR / CR / 1,6 / 7	1	325371
230 x 22,23	80 m/s	6600 rpm	CR / CR / 1,9 / 7	1	325372

# Diamond cutting blades for angle grinders

Diamond cutting blade

## DT 900 FL SPECIAL



### Properties

Design	Sintered
Segmentation	Continuous rim, with laser-cut slots
Aggression	■■■■■■■□
Service life	■■■■■■■□



### Applications:

Wall tiles	●	Marble	●
Floor tiles	●	Stoneware	●
Porcelain	●		
Ceramics	●		

**Advantages:** High-precision tool for hard wall and floor tiles - Laser-cut slots for exceptionally smooth operation and perfectly cut edges

Diameter x Bore in mm	Max. operating speed	Max. RPM	Segment in mm Number / Length / Width / Height	Packing unit/pcs.	Cat. number
115 x 22,23	80 m/s	13300 rpm	CR / CR / 1,4 / 7	1	331042
125 x 22,23	80 m/s	12200 rpm	CR / CR / 1,4 / 7	1	331043

Diamond cutting blade

## DT 900 FT SPECIAL



### Properties

Design	Sintered
Segmentation	Turbo continuous rim
Aggression	■■■■■■■
Service life	■■■■■■■□



### Applications:

Stoneware	●
Stove tiles	●
Stove tiles, glazed	●
Granite	●

**Advantages:** 1,4 mm thin professional blade for extremely demanding applications - Work results of superior quality - Continuous rim with turbo segments - Clean and nick-free edges

Diameter x Bore in mm	Max. operating speed	Max. RPM	Segment in mm Number / Length / Width / Height	Packing unit/pcs.	Cat. number
100 x 16 / 22,23	80 m/s	15300 rpm	CR / CR / 1,4 / 7,5	1	330627
125 x 22,23	80 m/s	12200 rpm	CR / CR / 1,4 / 7,5	1	325393

# Diamond cutting blades for angle grinders



Diamond cutting blade

## DT 900 FP SPECIAL



### Properties

Design	Sintered
Segmentation	Continuous rim, with special geometry
Aggression	■■■■■■■
Service life	■■■■■■■□



### Applications:

Hard floor tiles	●
Porcelain	●
Hard wall tiles	●
Hard fine stoneware	●

Ceramics ●

**Advantages:** Extra thin disc for hard tiles and porcelain - The special geometry allows for superior cutting speeds and perfectly cut edges

Diameter x Bore in mm	Max. operating speed	Max. RPM	Segment in mm Number / Length / Width / Height	Packing unit/pcs.	Cat. number
100 x 16 / 22,23	80 m/s	15300 rpm	CR / CR / / 1,4 / 10	1	337140
115 x 22,23	80 m/s	13300 rpm	CR / CR / / 1,4 / 10	1	331039
125 x 22,23	80 m/s	12200 rpm	CR / CR / / 1,4 / 10	1	331040



## Diamond cup grinding wheels for angle grinders

Diamond cup grinding wheel

### DS 600 B SUPRA



#### Properties

Design	Brazed
Segmentation	Standard
Aggression	■■■■■□□
Service life	■■■■■□□



#### Applications:

Concrete	●
Screed	●
Construction materials	●

**Advantages:** Double row cup grinding wheel for machining concrete and abrasive materials - Efficient dust extraction - Aggressive grinding performance - Long service life - M14 adapter available, see DZ 114

Diameter x Bore in mm	Cup grinding wheel height in mm	Max. operating speed	Max. RPM	Segment in mm Number / Width / Height	Packing unit/pcs.	Cat. number
100 x 16 / 22,23	20	80 m/s	15300 rpm	16 / 8,5 / 5,5	1	330621
115 x 22,23	20	80 m/s	13300 rpm	16 / 8,2 / 5,5	1	325377
125 x 22,23	23,5	80 m/s	12200 rpm	20 / 7,2 / 5,5	1	325378
180 x 22,23	30,5	80 m/s	8500 rpm	24 / 8 / 5,5	1	325379

Diamond cup grinding wheel

### DS 600 S SUPRA



#### Properties

Design	Brazed
Segmentation	Standard
Aggression	■■■■■□□
Service life	■■■■■□□



#### Applications:

Concrete	●	Brickwork	●
Firebrick	●		
Natural stone	●		
Masonry	●		

**Advantages:** Excellent dust extraction thanks to specially designed (fan-shaped) opening - Low weight thanks to lightweight steel plate - Rugged performance and operation with minimum vibrations - M14 adapter available, see DZ 114

Diameter x Bore in mm	Cup grinding wheel height in mm	Max. operating speed	Max. RPM	Segment in mm Number / Width / Height	Packing unit/pcs.	Cat. number
100 x 16 / 22,23	20,5	80 m/s	15300 rpm	16 / 7,2 / 5,5	1	331022
125 x 22,23	20,5	80 m/s	12200 rpm	16 / 7,2 / 5,5	1	331024

Adapter M14

## DZ 114



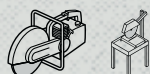
**Advantages:** For retooling diamond cup grinding wheels with a Ø 22.23 mm hole to an M14 spindle size - Suitable for all Klingspor diamond cup grinding wheels

Mounting	Packing unit/pcs.	Cat. number
thread M14	1	331332

# Diamond cutting blades for petrol powered cutters, table saws and joint cutters

Diamond cutting blade

## DT 600 U SUPRA



### Properties

Design	Laser welded
Segmentation	Short segments
Aggression	■■■■■■■□
Service life	■■■■□□□



### Applications:

Construction materials	●
Concrete, universal	●
Cured concrete, reinforced	●
Chalky sandstone	●

**Advantages:** High cutting performance - Long service life thanks to the use of premium-grade raw materials and diamonds - Clean cutting edges - Effortless cutting thanks to short serrated segments

Diameter x Bore in mm	Max. operating speed	Max. RPM	Segment in mm Number / Length / Width / Height	Packing unit/pcs.	Cat. number
350 x 20	100 m/s	5500 rpm	37 / 24 / 3 / 10	1	325194
350 x 25,4	100 m/s	5500 rpm	37 / 24 / 3 / 10	1	325195
400 x 20	100 m/s	4800 rpm	43 / 24 / 3,6 / 10	1	347484
400 x 25,4	100 m/s	4800 rpm	43 / 24 / 3,6 / 10	1	347485

Diamond cutting blade

## DT 900 US SPECIAL



### Properties

Design	Laser welded
Segmentation	Narrow gullet
Aggression	■■■■■■■
Service life	■■■■■■■



### Applications:

Cured concrete, reinforced	●
Concrete, universal	●
Construction materials	●
Chalky sandstone	●

Granite	●
---------	---

**Advantages:** All-purpose high-performance tool - Extremely high cutting speed - Special segment bond for long service life and clean cuts - Engineered for professional use - Ideally suited for low-noise work environments thanks to sandwich core

Diameter x Bore in mm	Max. operating speed	Max. RPM	Segmen- tation	Segment in mm Number / Length / Width / Height	Packing unit/pcs.	Cat. number
350 x 25,4	100 m/s	5500 rpm		24 / 40 / 3 / 10	1	334063
400 x 25,4	100 m/s	4800 rpm		28 / 40 / 3,6 / 10	1	349238

# Diamond cutting blades for petrol powered cutters, table saws and joint cutters



Diamond cutting blade

## DT 900 FL SPECIAL



### Properties

Design	Sintered
Segmentation	Continuous rim, with laser-cut slots
Aggression	■■■■■■■□
Service life	■■■■■■■□



### Applications:

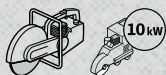
Wall tiles	●	Marble	●
Floor tiles	●	Stoneware	●
Porcelain	●		
Ceramics	●		

**Advantages:** High-precision tool for hard wall and floor tiles - Laser-cut slots for exceptionally smooth operation and perfectly cut edges - Reduction ring from 30 mm to 25,4 mm included

Diameter x Bore in mm	Max. operating speed	Max. RPM	Segment in mm Number / Length / Width / Height	Packing unit/pcs.	Cat. number
350 x 25,4 / 30	100 m/s	5500 rpm	CR / CR / 2,2 / 7	1	331050

Diamond cutting blade

## DT 612 A SUPRA



### Properties

Design	Laser welded
Segmentation	Wide gullet
Aggression	■■■■■■■□
Service life	■■■■■■■□



### Applications:

Asphalt	●
Sandstone	●

**Advantages:** High cutting speed combined with excellent service life - Protective segments to shield the core - Specially designed for applications on asphalt - Also suitable for use on electric joint cutters

Diameter x Bore in mm	Max. operating speed	Max. RPM	Segmen- tation	Segment in mm Number / Length / Width / Height	Packing unit/pcs.	Cat. number
350 x 25,4	100 m/s	5500 rpm		21 / 40 / 3,2 / 10	1	330076
400 x 25,4	100 m/s	4800 rpm		24 / 40 / 3,6 / 10	1	349227



# Diamond cutting blades for petrol powered cutters and joint cutters

Diamond cutting blade

## DT 902 A SPECIAL



### Properties

Design	Laser welded
Segmentation	Wide gullet
Aggression	■■■■■■■■■
Service life	■■■■■■■□



### Applications:

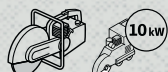
Asphalt	●
Sandstone	●
Green concrete	●
Screed	●

**Advantages:** Very high cutting performance - 12 mm high segments - Protective segments to guard the blade

Diameter x Bore in mm	Max. operating speed	Max. RPM	Segmen- tation	Segment in mm Number / Length / Width / Height	Packing unit/pcs.	Cat. number
350 x 25,4	100 m/s	5500 rpm		21 / 40 / 3,2 / 12	1	325094

Diamond cutting blade

## DT 612 AB SUPRA



### Properties

Design	Laser welded
Segmentation	Wide gullet
Aggression	■■■■■■■□
Service life	■■■■■■■□□



### Applications:

Asphalt	●
Concrete	●

**Advantages:** Suitable for asphalt and concrete - Specially engineered for use on both materials - High cutting speed – Excellent service life

Diameter x Bore in mm	Max. operating speed	Max. RPM	Segmen- tation	Segment in mm Number / Length / Width / Height	Packing unit/pcs.	Cat. number
350 x 25,4	100 m/s	5500 rpm		21 / 40 / 3,2 / 10	1	330081
400 x 25,4	100 m/s	4800 rpm		24 / 40 / 3,6 / 10	1	349226

# Diamond cutting blades for petrol powered cutters



Diamond cutting blade

## DT 900 B SPECIAL



### Properties

Design	Laser welded
Segmentation	Turbo
Aggression	■ ■ ■ ■ ■ ■ ■ ■
Service life	■ ■ ■ ■ ■ ■ ■ ■



### Applications:

Cured concrete, reinforced	●
Concrete, universal	●
Construction materials	●
Chalky sandstone	ⓘ


**Advantages:** Titanium-coated diamonds for first-rate cutting performance - Fast cutting speed even on reinforced concrete - Unrivalled service life - Designed for professional applications on concrete


Diameter x Bore in mm	Max. operating speed	Max. RPM	Segment in mm Number / Length / Width / Height	Packing unit/pcs.	Cat. number
350 x 20	100 m/s	5500 rpm	22 / 40 / 3 / 12	1	325080
350 x 25,4	100 m/s	5500 rpm	22 / 40 / 3 / 12	1	325081
400 x 20	100 m/s	4800 rpm	26 / 40 / 3,6 / 12	1	347489
400 x 25,4	100 m/s	4800 rpm	26 / 40 / 3,6 / 12	1	347490

# Reduction ring

Reduction rings

**DZ 100 RR**





**Advantages:** Reduction rings with serration for enhanced adhesion

Diameter x Width x Bore in mm	Suitable for	Packing unit/pcs.	Cat. number
25,4 x 2,5 x 20	Bore 25,4 mm	1	328934

1 1/4" UNC Female drill bit

## DK 654 B SUPRA



### Properties

Design	Laser welded
Segmentation	Standard
Aggression	■ ■ ■ ■ ■ ■ □
Service life	■ ■ ■ ■ ■ ■ □



### Applications:

Concrete, universal	●
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**Advantages:** Drill bits for universal applications - Very fast cutting - Long service life - Roof-shaped segments - Can be used on electric and hydraulic machines

Diameter in mm	Thread/Shaft	Overall length in mm	Segment in mm Number / Length / Width / Height	Packing unit/pcs.	Cat. number
52	thread 1 1/4"	450	5 / 24 / 3,5 / 11	1	325769
62	thread 1 1/4"	450	5 / 24 / 3,5 / 11	1	325772
82	thread 1 1/4"	450	7 / 24 / 3,5 / 11	1	325775
92	thread 1 1/4"	450	8 / 24 / 3,5 / 11	1	325776
102	thread 1 1/4"	450	9 / 24 / 3,5 / 11	1	325777
125	thread 1 1/4"	450	10 / 24 / 4 / 11	1	325780
172	thread 1 1/4"	450	13 / 24 / 4 / 11	1	325785

R 1/2" BSP Male drill bit

## DR 912 B SPECIAL



### Properties

Design	Laser welded
Segmentation	Standard
Aggression	■ ■ ■ ■ ■ ■ ■
Service life	■ ■ ■ ■ ■ ■ ■



### Applications:

Concrete, universal	●
---------------------	---

**Advantages:** Fast cutting - Long service life on reinforced concrete - Suitable for drill stand or handheld drilling

Diameter in mm	Thread/Shaft	Overall length in mm	Segment in mm Number / Width / Height	Packing unit/pcs.	Cat. number
24	thread 1/2"	300	1 / 2,5 / 10	1	325800





# Flexible abrasives

Hand block



Hand block

## SFK 655



### Properties

Bonding agent	Plastic
Grain	SiC

### Applications:

Paint/Varnish	●	Leather	●
Glass/Stone	●	Metals	●
Wood	●		
Plastic	●		

**Advantages:** Universal hand block for cleaning and finishing - Can be used on many materials - Cleaning performance is significantly increased by use of additives - Soft abrasion due to elastic structure - Can be used until completely worn down - Easy to cut to desired shape

Available grits:

16	24	30	36	40	50	60	80	100	120	150	180	220	240	280	320	360	400	500	600	800	1000	1200	1500	2000	2500	3000
----	----	----	----	----	----	----	----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	------	------	------	------	------	------

Width x Length x Height in mm	Grit	Packing unit/pcs.	Cat. number
80 x 50 x 20	60	18	13801
80 x 50 x 20	120	18	13802
80 x 50 x 20	240	1	13803

Hand block

## SFK 655 Set



### Properties

Bonding agent	Plastic
Grain	SiC

### Applications:

Paint/Varnish	●	Leather	●
Glass/Stone	●	Metals	●
Wood	●		
Plastic	●		

**Advantages:** Universal hand block for cleaning and finishing - Can be used on many materials - Cleaning performance is significantly increased by use of additives - Soft abrasion due to elastic structure - Can be used until completely worn down - Easy to cut to desired shape

**Contents:** 18 pcs. / 6 pieces in grit 60, 120, 240 each

Available grits:

16	24	30	36	40	50	60	80	100	120	150	180	220	240	280	320	360	400	500	600	800	1000	1200	1500	2000	2500	3000
----	----	----	----	----	----	----	----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	------	------	------	------	------	------

Width x Length x Height in mm	Packing unit/pcs.	Cat. number
80 x 50 x 20	1	72129













# Carbide burrs






## About the product

### Powerful milling and leveling of surfaces and forms

Klingspor carbide burrs are used wherever outstanding stock removal and service life are pivotal to the proper processing of hard-to-reach places. The burrs are manufactured according to the highest quality standards and with utmost precision. Our comprehensive product selection offers all shapes and dimensions

necessary to find the solution that matches each application best. Thanks to the abundance of available toothing options, you can be sure to achieve the desired outcome on any material and with unparalleled speed.

Type		Form
HF 100 A (ZYA)		Cylindrical
HF 100 B (ZYAS)		Cylindrical with end cut
HF 100 C (WRC)		Cylindrical with spherical head
HF 100 D (KUD)		Spherical shape
HF 100 E (TRE)		Oval shape
HF 100 F (RBF)		Conical shape
HF 100 G (SPG)		Arch shape
HF 100 H		Flame shape

Type		Form
HF 100 J (KSJ)		Conical shape, pointed nose (60°)
HF 100 K (KSK)		Conical shape, pointed nose (90°)
HF 100 L (KEL)		Conical shape, round nose
HF 100 M (SKM)		Conical shape, pointed nose
HF 100 N (WKN)		Dovetail

### Sets of burrs

HF 100	Set, 40 carbide burrs
HF 100	Set, 5 carbide burrs
HF 100 Steel	Set, 5 carbide burrs
HF 100 INOX	Set, 5 carbide burrs

Cut	Materials																							
	Steel							Soft NF metals			Hard NF metals			Creep resistant materials	Cast iron		Plastics							
	Carbon steel	Tool steel	Non-alloyed steel	Case-hardened steel	Cast steel	Alloyed steel	Hardened steel	Aluminium	Messing	Copper	Zinc	Bronze	Titanium		Titanium alloy	Aluminium alloy (high SiC contingent)	Nickel based alloy	Cobalt based alloy	Grey cast iron	White cast iron	GRP	CFRP	Ebonite / Hard rubber	Thermoplastic material
2	●	●	●	●	●	●	●		●	●	●	●	●	●	●	●	●	●	●					●
3								●	●	●	●											●	●	
6	●	●	●	●	●	●	●		●	●		●	●	●	●	●	●	●	●	●	●			●
10	●	●	●	●	●	●	●											●	●					
11																●	●							

● = main application ○ = possible application



### The cuts at a glance

#### 2 Cuts

Standard cut / plain cut with good finishing properties for universal applications.



#### 3 Cuts aluminium

High stock removal rate and reduced clogging of teeth for working on long-chipping and soft materials like NF metals and plastics.



#### 6 Cuts mega seller

Double cut for universal applications, improved handling and low vibration. Creates a small chip.



### New high performance tooth geometries for steel and INOX processing

Perfectly adapted to the respective group of processed material, the newly engineered blade geometries 10 (steel) and 11 (INOX) allow for a significantly higher stock removal rate when compared to the cross-cut toothing typically found on ordinary burrs.

#### The advantages at a glance:

- ▶ higher level of aggressiveness and cutting performance
- ▶ improved chip removal
- ▶ markedly enhanced service life thanks to reduced built-up edge formation
- ▶ less thermal stress on tool and workpiece
- ▶ decrease in annealing colours during INOX applications

#### 10 cuts high performance tooth geometry - steel

Tooth geometry optimised for steel processing; significantly higher stock removal rate compared to a standard cross-cut tooth geometry



#### 11 cuts high performance tooth geometry - INOX

Tooth geometry optimised for the processing of austenitic as well as corrosion and acid-resistant grades of stainless steel; strikingly improved stock removal performance by contrast with standard cross-cut tooth geometries



Additional cuts available on request

## Important safety recommendations

- Please ensure that a maximum 30% of the tools circumference is in contact with the workpiece
- Extra long burrs with extended shank require slower operating speeds
- Ensure the burr is clamped correctly in a regularly maintained operating tool
- Run the selected burr at the correct operating speed to avoid risks and to ensure an optimum tool performance
- Please observe the safety recommendations on the packaging

## Maximum operating speeds

Burr head in mm	Max. RPM
2/2,4/3	100,000
4/4,8/5/6/6,3	65,000
8/9,6/10/11	55,000
12/12,7	35,000
16	25,000
19,2	20,000
25,4	15,000

## Recommended operating speeds

Burr head diameter in mm	Optimal speed range (RPM), depending on materials			
	The values in brackets are recommended starting speeds (start points) if no empirical values are already available			
	NF metals	Aluminium, plastic	Unhardened steels	Hardened steels, stainless steel
2/2,4/3	45,000	60,000	60,000	60,000
	(65,000)	(65,000)	(80,000)	(80,000)
	up to 80,000	up to 80,000	up to 80,000	up to 80,000
4/4,8/5/6/6,3	22,000	15,000	45,000	30,000
	(45,000)	(40,000)	(50,000)	(40,000)
	up to 60,000	up to 60,000	up to 60,000	up to 45,000
8/9,6/10/11	15,000	10,000	30,000	19,000
	(30,000)	(25,000)	(30,000)	(25,000)
	up to 40,000	up to 50,000	up to 40,000	up to 30,000
12/12,7	11,000	7,000	22,000	15,000
	(25,000)	(20,000)	(25,000)	(20,000)
	up to 30,000	up to 30,000	up to 30,000	up to 22,000
16	9,000	6,000	18,000	12,000
	(20,000)	(15,000)	(20,000)	(15,000)
	up to 20,000	up to 20,000	up to 20,000	up to 18,000
19,2	8,000	5,000	15,000	10,000
	(12,000)	(10,000)	(15,000)	(10,000)
	up to 17,000	up to 17,000	up to 17,000	up to 15,000
25,4	6,000	4,000	10,000	7,000
	(10,000)	(8,000)	(10,000)	(8,000)
	up to 13,000	up to 13,000	up to 13,000	up to 11,000

# Carbide burrs

Carbide burr

## HF 100 B



**Properties:** Cylindrical burr with end cut - Designation in accordance with DIN 8032: ZYAS

**Advantages:** The end cut makes it suitable for blind holes and faces on inner contours



Diameter in mm	Height in mm	Total length in mm	Shaft diameter in mm	Cut	Packing unit/pcs.	Cat. number
6	18	50	6	6	1	295532
8	19	64	6	6	1	295553
9,6	19	64	6	6	1	295569
12,7	25	70	6	6	1	295610
6	18	51	6,35	6	1	310209
8	19	64	6,35	6	1	310210
9,6	19	64	6,35	6	1	310211
12,7	25	70	6,35	6	1	310212

Carbide burr

## HF 100 C



**Properties:** Cylindrical burr with ball end - Designation in accordance with DIN 8032: WRC

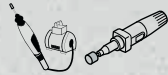
**Advantages:** For universal use on surfaces, contours and radiuses



Diameter in mm	Height in mm	Total length in mm	Shaft diameter in mm	Cut	Packing unit/pcs.	Cat. number
6	18	50	6	6	1	295694
8	19	63	6	6	1	295713
9,6	19	63	6	6	1	295727
12,7	25	70	6	6	1	295753
6	18	51	6,35	6	1	310213
8	19	64	6,35	6	1	310214
9,6	19	64	6,35	6	1	310275
12,7	25	70	6,35	6	1	310276

Carbide burr

## HF 100 F



**Properties:** Semi-circular burr - Designation in accordance with DIN 8032: RBF

**Advantages:** Well suited for working on moulded parts



Diameter in mm	Height in mm	Total length in mm	Shaft diameter in mm	Cut	Packing unit/pcs.	Cat. number
9,6	19	64	6	3	1	295985
12,7	25	70	6	3	1	296007
6	18	50	6	6	1	295971
9,6	19	64	6	6	1	295987
12,7	25	70	6	6	1	296010
6	18	51	6,35	6	1	310277
9,6	19	64	6,35	6	1	310279
8	20	65	6,35	6	1	310278
12,7	25	70	6,35	6	1	310280

Carbide burr

## HF 100 G



**Properties:** Pointed arch-shaped burr with flattened tip - Designation in accordance with DIN 8032: SPG

**Advantages:** Ideal for chamfering - For deburring bore holes



Diameter in mm	Height in mm	Total length in mm	Shaft diameter in mm	Cut	Packing unit/pcs.	Cat. number
6	18	50	6	6	1	296062
8	19	64	6	6	1	296066
9,6	19	64	6	6	1	296074
12,7	25	70	6	6	1	296086
8	19	64	6,35	6	1	310282
9,6	19	64	6,35	6	1	310283
12,7	25	70	6,35	6	1	310284



# Carbide burrs

Carbide burr

## HF 100 L



**Properties:** Conical round-nosed burr - Designation in accordance with DIN 8032: KEL

**Advantages:** For difficult-to-access areas



Diameter in mm	Height in mm	Total length in mm	Shaft diameter in mm	Cut	Packing unit/pcs.	Cat. number
6	18	50	6	6	1	296200
8	25,4	70	6	6	1	296205
9,6	30	76	6	6	1	296201
12,7	32	77	6	6	1	296192
6	18	51	6,35	6	1	310286
8	25,4	70	6,35	6	1	310288
9,6	30	76	6,35	6	1	310287
12,7	32	77	6,35	6	1	310285

Carbide burr

## HF 100 Set



**Properties:** 5 top sellers (B, C, F, G) from our carbide burr programme in cut 6 in a handy box for a safe storage

**Contents:** HF 100 B 6 x 18 x 6 (295532), HF 100 C 6 x 18 x 6 (295694), HF 100 C 12,7 x 25 x 6 (295753), HF 100 F 12,7 x 25 x 6 (296010), HF 100 G 8 x 19 x 6 (296066)

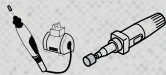
**Advantages:** Presentation of the top sellers - Practical and safe storage of the burrs

Size in mm	Cut	Packing unit/pcs.	Cat. number
6 mm	6	1	309577



Carbide burr

**HF 100 Set**



**Properties:** 5 top sellers (B, C, F, G) from our carbide burr programme in cut 6 in a handy box for a safe storage  
**Contents:** HF 100 B 6 x 18 x 6,35 (310209), HF 100 C 6 x 18 x 6,35 (310213), HF 100 C 12,7 x 25 x 6,35 (310276), HF 100 F 12,7 x 25 x 6,35 (310280), H F100 G 8 x 19 x 6,35 (310282)  
**Advantages:** Presentation of the top sellers - Practical and safe storage of the burrs

Size in mm	Cut	Packing unit/pcs.	Cat. number
6,35 mm	6	1	310743







# Wire brushes





## About the product

The wire brushes made by Klingspor are used for a wide variety of machining tasks in the steel and stainless steel sector. A key benefit a wire brush holds over abrasives is the fact that the brush only works on the surface of the workpiece without changing the shape of the workpiece to be processed. This benefit is of particular importance during work on ultra-thin sheet metal.

The selection of wire brushes offered by Klingspor comprises a comprehensive range of products that are designed for the most diverse machining tasks, materials and machines.

## Applications

- Cleaning of weld seams and surfaces (rust removal, descaling, paint stripping)
- Deburring of cutting edges
- Structuring of surfaces (creating matt, satin or rough finishes)

Machines	Type of wire brush	Wire style	Bristle material	Material applications									Type
				Construction steel	Carbon steel	Alloyed steels	Cast iron	Stainless steel	Aluminium	Copper	Brass	Wood	
	Wheel brush	Knotted	Steel wire	●	●	●	●						<b>BR 600 Z</b>
			INOX wire					●	●	●	●		<b>BRP 600 Z</b>
	Pipeline brush	Knotted	Steel wire	●	●	●	●						<b>BK 600 Z</b>
	Cone brush	Knotted	Steel wire	●	●	●	●						<b>BT 600 Z</b>
			INOX wire					●	●	●	●		<b>BT 600 W</b>
	Cup-shaped brush	Knotted	Steel wire	●	●	●	●						<b>BRS 600 Z</b>
			INOX wire					●	●	●	●		<b>BRS 600 W</b>
		Crimped	Steel wire	●	●	●	●						<b>BRS 600 P</b>
	Wheel brush with shaft Ø 6 mm	Knotted	Steel wire	●	●	●	●						<b>BTS 600 W</b>
			INOX wire					●	●	●	●		<b>BPS 600 Z</b>
	Wheel brush with shaft Ø 6 mm	Crimped	Steel wire	●	●	●	●						<b>BPS 600 W</b>
			INOX wire					●	●	●	●		<b>BH 600</b>
	Wheel brush with shaft Ø 6 mm	Abrasive bristle	SIC	●		●		●	●	●	●	●	<b>BHP 600</b>
	Cup-shaped brush with shaft Ø 6 mm	Crimped	Steel wire	●	●	●	●						<b>BHK 600</b>
			INOX wire					●	●	●	●		<b>BHZ 600</b>
			INOX wire					●	●	●	●		
	End brush with shaft Ø 6 mm	Knotted	Steel wire	●	●	●	●						<b>BH 600</b>
			INOX wire					●	●	●	●		<b>BHP 600</b>
	End brush with shaft Ø 6 mm	Crimped	Steel wire	●	●	●	●						<b>BHK 600</b>
			INOX wire					●	●	●	●		<b>BHZ 600</b>
	End brush with shaft Ø 6 mm	Crimped	Steel wire	●	●	●	●						<b>BH 600</b>
			INOX wire					●	●	●	●		<b>BHP 600</b>
	Handheld brush with wooden handpiece	Straight	Steel wire	●	●	●	●						<b>BHK 600</b>
			INOX wire					●	●	●	●		<b>BHZ 600</b>
	Handheld brush with plastic handpiece	Crimped	Steel wire	●	●	●	●						<b>BH 600</b>
			INOX wire					●	●	●	●		<b>BHP 600</b>
			Brass wire						●	●	●	●	<b>BHK 600</b>
	Handheld brush fillet weld	Straight	Steel wire	●	●	●	●						<b>BHZ 600</b>
			INOX wire					●	●	●	●		<b>BH 600</b>
	Spark plug brush	Crimped	Steel wire					●	●	●	●		<b>BHP 600</b>
			Brass wire						●	●	●	●	<b>BHK 600</b>
			INOX wire					●	●	●	●		<b>BHZ 600</b>

● = main application



# Wire brushes

## Applications guide

### The most common brushes at a glance



#### Wheel brushes

Preparing and finishing weld seams, deburring and cleaning cutting edges, corners or angles



#### Cone brushes

For work on difficult-to-access areas, corners or edges as well as for surface cleaning



#### Cup-shaped brushes

For efficient rust, paint or weld spatter removal from large surfaces



#### End brushes

Ideal tool for work on the insides of pipes, drill holes or indentations



#### Handheld brushes

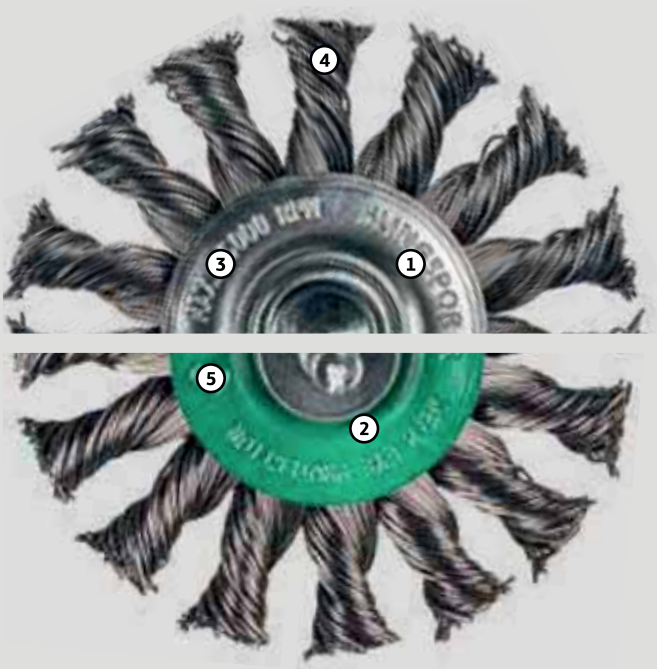
For the manual cleaning of surfaces and weld seams

# Wire brushes

## Applications guide



- 1. Klingspor logotype**  
Reference to certified Klingspor quality
- 2. Safety recommendations**
- 3. Rotational speed**  
Reference to maximum permissible motor speed in revolutions per minute



- 4. Wire style**  
Klingspor offers wire brushes with knotted, crimped or SIC polyamide bristles
- 5. Area of application**  
The base colour of the tool gives an indication of the wire material used  
Green = stainless steel  
Silver = steel

### What the type designation reveals about the design of wire brushes

Product group	Type of wire brush	Performance class	Wire style
<div>B</div> <div>Brushes</div>	<div>K</div> <div>Cone brush</div> <div>R</div> <div>Wheel brush</div> <div>RP</div> <div>Wheel brush pipeline</div> <div>T</div> <div>Cup-shaped brush</div> <div>TS</div> <div>Cup-shaped brush with shaft</div> <div>PS</div> <div>End brush with shaft</div> <div>RS</div> <div>Wheel brush with shaft</div> <div>H</div> <div>Handheld brush with wooden handpiece</div> <div>HP</div> <div>Handheld brush with plastic handpiece</div> <div>HK</div> <div>Fillet weld brush</div> <div>HZ</div> <div>Spark plug brush</div>	<div>600</div> <div>SUPRA</div>	<div>Z</div> <div>Knotted</div> <div>W</div> <div>Crimped</div> <div>P</div> <div>SIC polyamide bristles</div>

Here explained by example of the BTS 600 W

Product group	Type of wire brush	Performance class	Wire style
<div>B</div> <div>Brushes</div>	<div>TS</div> <div>Cup-shaped brush with shaft</div>	<div>600</div> <div>SUPRA</div>	<div>W</div> <div>Crimped</div>

# Wire brushes

## Applications guide

## Bristle materials and their properties

### Wire types / style

#### Steel wire

High strength quality steel wire with great tensile and bending fatigue strength for exceptional economy.



#### Knotted

- ▶ Aggressive brush action
- ▶ Long service life
- ▶ Minimum flexibility



#### Non-corrosive steel wire / INOX

Quality stainless steel wire with great tensile strength for a long service life. Resistant to corrosion during applications on chromium-nickel steel, aluminium and other NF metals.



#### Crimped

- ▶ Gentle, material-friendly brush action
- ▶ For sensitive surfaces and soft materials
- ▶ Perfect contouring to the shape of the workpiece



#### Brass wire

Soft, fine brass wire for the surface finish of NF metals (copper, brass).



#### Polyamide bristle







A flexible abrasive bristle interspersed with SiC abrasive grain. Uniform brush action thanks to the continuous release of new abrasive grain.



## Safe application of wire brushes

The maximum operating speed of the brush varies with the diameter of the brush and must never be exceeded for safety reasons. Before using the brush, always verify that the motor speed of the machine does not exceed the maximum operating speed of the brush.

Refer to the table below for a recommendation as to which brush diameter you can mount on which angle grinder:

		Ø 115 mm (max. 12,500 rpm)	Ø 125 mm (max. 11,500 rpm)	Ø 180 mm (max. 8,500 rpm)
Type of brush		Brush diameter		
	<b>BR 600 Z</b> Wheel brush, knotted	Ø 115 mm (max. 12,500 rpm)	Ø 125 mm (max. 12,500 rpm)	Ø 180 mm (max. 8,500 rpm)
	<b>BRP 600 Z</b> Pipeline brush, knotted	Ø 115 mm (max. 15,000 rpm)	Ø 125 mm (max. 12,500 rpm)	Ø 180 mm (max. 9,000 rpm)
	<b>BK 600 Z</b> Cone brush, knotted	Ø 100 mm Ø 115 mm (max. 12,500 rpm)		
	<b>BT 600 Z</b> Cup-shaped brush, knotted	Ø 65 mm (max. 12,500 rpm)		Ø 80 mm Ø 100 mm (max. 8,500 rpm)
	<b>BT 600 W</b> Cup-shaped brush, crimped	Ø 65 mm (max. 12,500 rpm)		Ø 80 mm Ø 100 mm (max. 8,500 rpm)



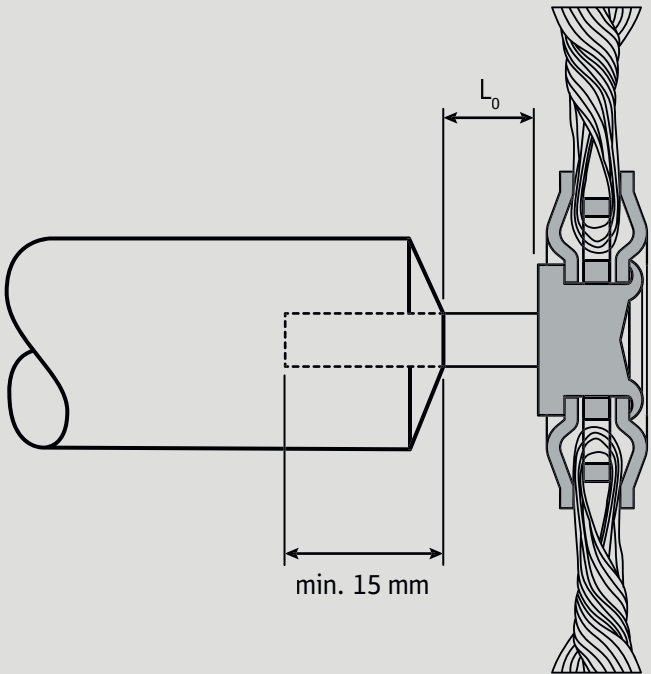
Cutting speeds

The cutting speeds are dependent on the material to be processed. Working within the proper speed range is paramount to the economical operation of the brush. Depending on the material, we recommend using the following cutting speeds as guidelines:

Material	Cutting speed [m/s]									
	10	15	20	25	30	35	40	45	50	55
Steel								40 - 50		
Stainless steel					30 - 35					
NF metals			18 - 22							
Plastic		15 - 20								

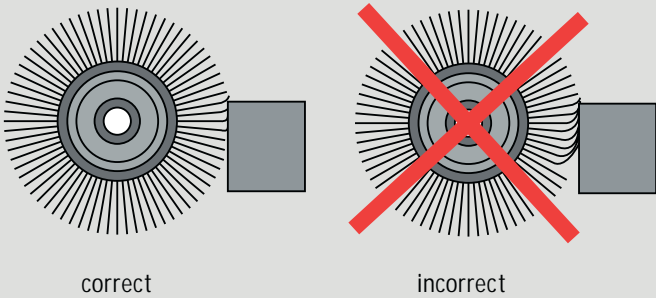
Safe use of shaft brushes

The receiving shaft should be as low as possible, but should be clamped into the tool holder with a depth of no less than 15 mm. If the exposed shaft length is  $L_0 > 10\text{mm}$ , the speed must be reduced for safety reasons.



Tool pressure

You will achieve an optimum sanding result when working only with the wire tips of the brush. Increasing the tool pressure will cause the brush to wear out faster due to wire breakage and thus reduce the service life of the brush.



## Factors with an impact on the brushing result

If the brushing result does not satisfy your requirements, you can optimise the outcome by changing certain application parameters.

Measure Problem	Brush Ø	Rotational speed	Wire thickness	Bristle length
Brush action too weak	increase	increase	increase	reduce
Brush action too aggressive	decrease	reduce	reduce	extend
Surface finish too rough and uneven	decrease	reduce	reduce	extend
Surface finish too fine	increase	increase	increase	reduce
Formation of secondary burrs	increase	increase	increase	reduce

## The safe use of Klingspor abrasives

Manufactured in compliance with the requirements set out in the EN 1083-2, Klingspor wire brushes guarantee the highest level of safety for the user.



Wear safety goggles or glasses to protect the eyes



Wear dust mask



Use ear protectors



Wear safety gloves to protect hands



Observe safety instructions

## Brushes

Wheel brush, knotted wire

### BR 600 Z



#### Applications:

Stainless steel	●
Steel	●

**Advantages:** Wheel brush for pre- and post-processing of welding seams - For aggressive removal of scale, rust, slag - For heavy brushing and deburring work

Diameter x Width x Bore in mm	Fill material	Wire thickness in mm	Filament length in mm	Number of knots	Max. RPM	Packing unit/pcs.	Cat. number
125 x 14 x 22,23	Steel	0,50	22	24	12500 rpm	1	358312
125 x 14 x 22,23	Stainless steel	0,50	22	24	12500 rpm	1	358343

Pipeline brush, knotted wire

### BRP 600 Z



#### Applications:

Steel	●
Stainless steel	●

**Advantages:** Ideal tool for the professional processing of U / V-type welds in pipeline, pipework and container construction - Thanks to its slim overall width it is also well suited for working on hard-to-reach areas (e.g. root or narrow fillet welds) - Cleaning of all welding seams on pipe connections

Diameter x Width x Bore in mm	Fill material	Wire thickness in mm	Filament length in mm	Number of knots	Max. RPM	Packing unit/pcs.	Cat. number
125 x 6 x 22,23	Steel	0,50	22	36	12500 rpm	1	358315
125 x 6 x 22,23	Stainless steel	0,50	22	36	12500 rpm	1	363992
178 x 6 x 22,23	Steel	0,50	42	48	9000 rpm	1	358319

Bevel brush with thread, knotted wire

## BK 600 Z



### Applications:

Steel	●
Stainless steel	●

**Advantages:** Ideal tool for working on hard-to-reach areas, inside corners and bevels - High brushing capacity due to knotted wire design - Excellent for cleaning larger surfaces - Removal of scale, rust, paint, slag, etc.

Diameter x Width in mm	Thread/Shaft	Fill material	Wire thickness in mm	Filament length in mm	Number of knots	Max. RPM	Packing unit/pcs.	Cat. number
100 x 14	thread M14	Steel	0,50	20	18	12500 rpm	1	358327
100 x 14	thread M14	Stainless steel	0,50	20	20	12500 rpm	1	358329
115 x 14	thread M14	Steel	0,50	22	18	12500 rpm	1	358328
115 x 14	thread M14	Stainless steel	0,50	22	20	12500 rpm	1	358330

Cup brush with thread, knotted wire

## BT 600 Z



### Applications:

Steel	●
Stainless steel	●

**Advantages:** For aggressive brushing work on large, flat surfaces - For preparing metal surfaces before varnishing - Stable knotted wire design for easy cleaning and removal of slag, rust, scale and concrete residues

Diameter in mm	Thread/Shaft	Fill material	Wire thickness in mm	Filament length in mm	Number of knots	Max. RPM	Packing unit/pcs.	Cat. number
65	thread M14	Steel	0,35	22	18	12500 rpm	1	358334
65	thread M14	Steel	0,50	22	18	12500 rpm	1	358335
65	thread M14	Stainless steel	0,50	22	18	12500 rpm	1	358340
80	thread M14	Steel	0,50	22	20	8500 rpm	1	358337
100	thread M14	Steel	0,50	27	22	8500 rpm	1	358338



## Brushes

*Cup-shaped brush, crimped wire*

### BT 600 W



#### Applications:

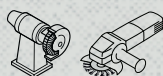
Steel	●
Stainless steel	●

**Advantages:** Ideal tool for cleaning and clearing profiled or uneven surfaces, e.g. checker plate - For medium-duty brushing work, derusting and removing paint, impurities and paint residues - Material-saving work - For processing very thin sheet metal, e.g. car workshops and restoration companies

Diameter in mm	Thread/Shaft	Fill material	Wire thickness in mm	Filament length in mm	Max. RPM	Packing unit/pcs.	Cat. number
65	thread M14	Steel	0,30	21	12500 rpm	1	358372
65	thread M14	Stainless steel	0,30	21	12500 rpm	1	358377
80	thread M14	Steel	0,30	24	8500 rpm	1	358373
80	thread M14	Stainless steel	0,30	24	8500 rpm	1	358326
100	thread M14	Steel	0,30	27	8500 rpm	1	358375

*Wheel brush, crimped wire*

### BR 600 W



#### Applications:

Steel	●
Stainless steel	●

**Advantages:** Suitable for low to medium duty brushing and deburring of cut edges, tubes or small parts - Ø150-200 mm for use on stationary machines - Ø115/Ø125 mm for use on angle grinders - High fill density for a long service life

**Incl. adapter set for brushes Ø 150 - 200 mm to reduce the mounting hole (12,7 mm, 16 mm, 19 mm, 22,2 mm, 25,4 mm)**

Diameter x Width x Bore in mm	Fill material	Wire thickness in mm	Filament length in mm	Max. RPM	Packing unit/pcs.	Cat. number
150 x 25 x 32	Steel	0,30	30	6000 rpm	1	363997
150 x 25 x 32	Stainless steel	0,30	30	6000 rpm	1	364000
200 x 25 x 32	Steel	0,30	45	4500 rpm	1	363999
200 x 25 x 32	Stainless steel	0,30	45	4500 rpm	1	364002

Wheel brush with shaft, knotted wire

## BRS 600 Z



### Applications:

Steel	●
Stainless steel	●

**Advantages:** Knotted design for rough brushing work and long service life - For efficient work in hard-to-reach areas such as grooves, flutes, depressions - Deburring of cut edges, removal of scale, paint, slag



Diameter x Width x Shaft in mm	Total length in mm	Fill material	Wire thickness in mm	Filament length in mm	Number of knots	Max. RPM	Packing unit/pcs.	Cat. number
75 x 12 x 6	37	Steel	0,50	19	15	25000 rpm	1	358320
75 x 12 x 6	37	Stainless steel	0,50	19	15	25000 rpm	10	358321

Wheel brush with shaft, crimped wire

## BRS 600 W



### Applications:

Steel	●
Stainless steel	●

**Advantages:** Crimped wire design for gentle cleaning of small to medium surfaces - Excellently suitable for components with difficult access such as beads, flanged edges - Good brushing performance even with profiled workpieces



Diameter x Width x Shaft in mm	Total length in mm	Fill material	Wire thickness in mm	Filament length in mm	Max. RPM	Packing unit/pcs.	Cat. number
30 x 9 x 6	40	Steel	0,20	6	20000 rpm	20	358346
30 x 9 x 6	40	Stainless steel	0,20	6	20000 rpm	20	358357
40 x 9 x 6	40	Steel	0,20	11	18000 rpm	20	358348
40 x 9 x 6	40	Stainless steel	0,20	11	18000 rpm	20	358358
50 x 9 x 6	40	Steel	0,30	13	15000 rpm	10	358354
50 x 9 x 6	40	Stainless steel	0,30	13	15000 rpm	10	358359
60 x 14 x 6	44	Steel	0,30	18	15000 rpm	10	358355
60 x 14 x 6	44	Stainless steel	0,30	18	15000 rpm	10	358360
70 x 16 x 6	48	Steel	0,30	20	15000 rpm	10	358356
70 x 16 x 6	48	Stainless steel	0,30	20	15000 rpm	10	358362

## Brushes

Cup brush with shaft, crimped wire

### BTS 600 W



#### Applications:

Steel	●
Stainless steel	●

**Advantages:** Ideal tool for cleaning small and medium-sized surfaces - Crimped wire ideal for fine machining or surface preparation of steel or stainless steel - Removes paint, rust, incrustations

Diameter x Shaft in mm	Total length in mm	Fill material	Wire thickness in mm	Filament length in mm	Max. RPM	Packing unit/pcs.	Cat. number
50 x 6	70 mm	Steel	0,30	24	13000 rpm	20	358331
50 x 6	70 mm	Stainless steel	0,30	24	13000 rpm	20	358332

End brush with shaft, knotted wire

### BPS 600 Z



#### Applications:

Steel	●
Stainless steel	●

**Advantages:** Tool diameter changes depending on the rotation speed - Perfectly suited for working on pipe inner surfaces or bores - High brushing effect due to knotted wire design

Diameter x Shaft in mm	Total length in mm	Fill material	Wire thickness in mm	Filament length in mm	Number of knots	Max. RPM	Packing unit/pcs.	Cat. number
19 x 6	70	Steel	0,35	25	6	20000 rpm	1	358333
19 x 6	70	Stainless steel	0,35	25	6	20000 rpm	20	358336
22 x 6	70	Steel	0,35	25	8	20000 rpm	10	358339
22 x 6	70	Stainless steel	0,35	25	8	20000 rpm	10	358341
30 x 6	72	Steel	0,35	25	12	20000 rpm	10	358344

End brush with shaft, crimped wire

## BPS 600 W



### Applications:

Steel	●
Stainless steel	●

**Advantages:** For fine machining and removal of light burrs in pipes or bores - Well suited for processing and cleaning moulds and die-cast parts - Very soft and adaptable tool



Diameter x Shaft in mm	Total length in mm	Fill material	Wire thickness in mm	Filament length in mm	Max. RPM	Packing unit/pcs.	Cat. number
12 x 6	70	Steel	0,30	25	20000 rpm	30	358350
12 x 6	70	Stainless steel	0,30	25	20000 rpm	30	358351
25 x 6	75	Steel	0,30	25	18000 rpm	1	358347
25 x 6	75	Stainless steel	0,30	25	18000 rpm	10	358352
30 x 6	75	Steel	0,30	25	18000 rpm	10	358349
30 x 6	75	Stainless steel	0,30	25	18000 rpm	10	358353



## Brushes

Hand brush with wooden body

### BH 600



#### Applications:

Steel	●
Stainless steel	●
NF metals	●

**Advantages:** Hand brush with wooden handle for manual removal of rust, dirt, paint

Length in mm	Overall length in mm	Filament length in mm	Fill material	Structure	Number of rows	Wire thickness in mm	Packing unit/pcs.	Cat. number
290	125	25	Steel	Straight	3	0,35 mm	12	358376
290	125	25	Steel	Straight	4	0,35 mm	1	358365
290	125	25	Steel	Straight	5	0,35 mm	12	358363
290	125	25	Stainless steel	Straight	3	0,30 mm	12	358368
290	125	25	Stainless steel	Straight	4	0,30 mm	12	358370

Hand brush with plastic handle

### BHP 600



#### Applications:

Steel	●
Stainless steel	●
NF metals	●

**Advantages:** Comfortable handling due to ergonomically shaped plastic handle - Crimped wire design for gentle cleaning of steel, stainless steel or non-ferrous metals

Length in mm	Overall length in mm	Filament length in mm	Fill material	Structure	Wire thickness in mm	Packing unit/pcs.	Cat. number
265	140	25	Steel	Crimped	0,30 mm	1	358323
265	140	25	Stainless steel	Crimped	0,30 mm	1	358324
265	140	25	Brass	Crimped	0,30 mm	24	358325

V Shaped scratch brush

## BHK 600



### Applications:

Steel	●
Stainless steel	●
NF metals	●

**Advantages:** V-shaped wire fill ideal for cleaning and cleansing fillet and V-type welds - Well suited for working in hard-to-reach areas, e.g. corners or angles

Length in mm	Overall length in mm	Filament length in mm	Fill material	Structure	Number of rows	Wire thickness in mm	Packing unit/pcs.	Cat. number
290	125	25	Steel	Straight	3	0,35 mm	12	358378
290	125	25	Stainless steel	Straight	3	0,30 mm	12	358379

Spark plug brush

## BHZ 600



### Applications:

Steel	●
Stainless steel	●
NF metals	●

**Advantages:** Soft brass or stainless steel wire suitable for fine brushing work - Ideal for the gentle cleaning of contact surfaces, e.g. spark plugs or electrodes

Length in mm	Overall length in mm	Filament length in mm	Fill material	Structure	Number of rows	Wire thickness in mm	Packing unit/pcs.	Cat. number
145	45	17	Brass	Crimped	3	0,17 mm	25	358322
145	45	17	Stainless steel	Crimped	3	0,17 mm	1	358463





# Retail range

## **The ideal presentation for coated abrasives**

Klingspor offers a display system for an attractive and sales promoting presentation of the products.

The compact space saving display system allows an efficient use of the sales area.

Klingspor's expert advisors are at your disposal.

## **The complete range available**

- ▶ The relevant grit ranges and assortments in customised packing units
- ▶ Uniform packing design, precise product identification for quick access

## **Product pyramid**

With our new point of sale display you give Klingspor products the appropriate appearance!

- ▶ **Stylish:** Visual appearance and design of the point of sale display guarantee a maximum of attention.
- ▶ **Space-saving:** Our pyramid does not need a lot of space. This saves sales area and offers your customers a perfect possibility of presenting the Klingspor products.



## Retail range

### Coated abrasives

Abrasive cloth

## LS 309 XH

### Retail packs



#### Properties

Bonding agent	Resin
Grain	Aluminium oxide
Coating	Close
Backing	X-cotton

#### Applications:

Wood	●
Metals	●
NF metals	●
Paint/Varnish/Filler	●

**Advantages:** Special type for portable belt sanders - For universal use on wood, metal, paint and varnish - Large product mix of belts for all standard machines

Available grits:

16	24	30	36	40	50	60	80	100	120	150	180	220	240	280	320	360	400	500	600	800	1000	1200	1500	2000	2500	3000
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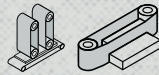
Width x Length in mm	Grit	Belt joint	Content of 1 pack	Cat. number
75 x 457	3 x Grit 40 belts	F5	6 Selling Units (18 belts)	9189
75 x 457	3 x Grit 60belts	F5	6 Selling Units (18 belts)	9176
75 x 457	3 x Grit 80 belts	F5	6 Selling Units (18 belts)	9172
75 x 457	3 x Grit 120 belts	F5	6 Selling Units (18 belts)	7138
75 x 533	3 x Grit 40 belts	F5	6 Selling Units (18 belts)	7018
75 x 533	3 x Grit 60 belts	F5	6 Selling Units (18 belts)	7019
75 x 533	3 x Grit 80 belts	F5	6 Selling Units (18 belts)	7020
75 x 533	3 x Grit 120 belts	F5	6 Selling Units (18 belts)	7022
100 x 610	3 x Grit 40 belts	F5	6 Selling Units (18 belts)	7080
100 x 610	3 x Grit 60 belts	F5	6 Selling Units (18 belts)	7081
100 x 610	3 x Grit 80 belts	F5	6 Selling Units (18 belts)	7082
100 x 610	3 x Grit 120 belts	F5	6 Selling Units (18 belts)	7084

**1 pack (minimum order quantity) = 6 Selling Units = 18 belts**

Abrasive cloth, waterproof

## CS 416 Y

### Retail packs



#### Properties

Bonding agent	Resin
Grain	Zirconia alumina
Coating	Semi-open
Backing	Y-polyester

#### Applications:

Stainless steel	●
Plastic	●
NF metals	○

**Advantages:** Very high aggressiveness and abrasive performance - Long service life also when used on materials that cause clogging

Available grits:

16	24	30	36	40	50	60	80	100	120	150	180	220	240	280	320	360	400	500	600	800	1000	1200	1500	2000	2500	3000
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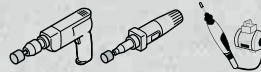
Width x Length in mm	Grit	Belt joint	Content of 1 pack	Cat. number
50 x 915	6 x Grit 40 belts	F4G	3 Selling Units (18 belts)	322688
50 x 915	6 x Grit 60 belts	F4G	3 Selling Units (18 belts)	322689
50 x 915	6 x Grit 80 belts	F4G	3 Selling Units (18 belts)	322690
50 x 915	6 x Grit 120 belts	F4G	3 Selling Units (18 belts)	322691

**1 pack (minimum order quantity) = 6 Selling Units = 18 belts**

Abrasive cloth

## CS 410 X

### Retail packs



#### Properties

Bonding agent	Resin
Grain	Aluminium oxide
Coating	Close
Backing	X-cotton

#### Applications:

Stainless steel	●
NF metals	●

**Advantages:** Convenient hang pack containing 4 grades of our popular 25mm abrasive bands in 40, 60, 80 and 120 grit with a holder to suit

Available grits:

16	24	30	36	40	50	60	80	100	120	150	180	220	240	280	320	360	400	500	600	800	1000	1200	1500	2000	2500	3000
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Diameter x Width in mm	Content of 1 selling unit	Content of 1 pack	Cat. number
25 x 25	16 abrasive bands + 1 adaptor	16 abrasive bands + 1 adaptor	354102

**1 pack (minimum order quantity) = 1 selling unit = 16 abrasive bands in 4 grits and 1 adaptor**

## Retail range

Fibre discs / Coated abrasives

Abrasive fibre disc

### CS 561

#### Retail packs



##### Properties

Bonding agent	Resin
Grain	Aluminium oxide
Coating	Close

##### Applications:

Steel	●	Stainless steel	ⓘ
NF metals	●	Wood	ⓘ
Metals	●		
Plastic	ⓘ		

**Advantages:** For universal use - Robust, resistant and long-lasting

Available grits:

16	24	30	36	40	50	60	80	100	120	150	180	220	240	280	320	360	400	500	600	800	1000	1200	1500	2000	2500	3000
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Diameter x Hole in mm	Grit	Hole pattern	Max. RPM	Content of 1 pack	Cat. number
125 x 22	5 x Grit 40 discs	⊗ 30	12200 rpm	5 Selling Units (25 discs)	255911
125 x 22	5 x Grit 60 discs	⊗ 30	12200 rpm	5 Selling Units (25 discs)	255912
125 x 22	5 x Grit 80 discs	⊗ 30	12200 rpm	5 Selling Units (25 discs)	255913

**1 pack (minimum order quantity) = 5 Selling Units = 25 discs**

Abrasive paper, self-fastening

### PS 22 K

#### Retail packs



##### Properties

Bonding agent	Resin
Grain	Aluminium oxide
Coating	Semi-open
Backing	E-paper

##### Applications:

Wood	●	Plastic	ⓘ
Metals	●		
Stainless steel	ⓘ		
Paint/Varnish/Filler	ⓘ		

**Advantages:** Universal abrasive disc for metalworking and woodworking - Uniform surface scratch pattern - Available in many grit sizes and dimensions

Available grits:

16	24	30	36	40	50	60	80	100	120	150	180	220	240	280	320	360	400	500	600	800	1000	1200	1500	2000	2500	3000
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Diameter in mm	Grit	Hole pattern	Content of 1 pack	Cat. number
96	5 x Grit 40	⚠ GLS 15	5 Selling Units (25 discs)	241656
96	5 x Grit 60	⚠ GLS 15	5 Selling Units (25 discs)	241657
96	5 x Grit 80	⚠ GLS 15	5 Selling Units (25 discs)	241658
96	5 x Grit 120	⚠ GLS 15	5 Selling Units (25 discs)	241659

**1 pack (minimum order quantity) = 5 Selling Units = 25 discs**

*Abrasive paper, self-fastening*

## PS 22 K

### Retail packs



#### Properties

Bonding agent	Resin
Grain	Aluminium oxide
Coating	Semi-open
Backing	E-paper

#### Applications:

Wood	●	Plastic	●
Metals	●		
Stainless steel	○		
Paint/Varnish/Filler	○		



**Advantages:** Universal abrasive disc for metalworking and woodworking - Uniform surface scratch pattern - Available in many grit sizes and dimensions

Available grits:

16	24	30	36	40	50	60	80	100	120	150	180	220	240	280	320	360	400	500	600	800	1000	1200	1500	2000	2500	3000
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Diameter in mm	Grit	Hole pattern	Content of 1 pack	Cat. number
125	5 x Grit 40 discs	⊙ GLS 5	5 Selling Units (25 discs)	241614
125	5 x Grit 60 discs	⊙ GLS 5	5 Selling Units (25 discs)	241625
125	5 x Grit 80 discs	⊙ GLS 5	5 Selling Units (25 discs)	241626
125	5 x Grit 120 discs	⊙ GLS 5	5 Selling Units (25 discs)	241627
125	5 x Grit 180 discs	⊙ GLS 5	5 Selling Units (25 discs)	241628
150	5 x Grit 40 discs	⊙ GLS 51	5 Selling Units (25 discs)	319068
150	5 x Grit 60 discs	⊙ GLS 51	5 Selling Units (25 discs)	319069
150	5 x Grit 80 discs	⊙ GLS 51	5 Selling Units (25 discs)	319070
150	5 x Grit 120 discs	⊙ GLS 51	5 Selling Units (25 discs)	319071
150	5 x Grit 180 discs	⊙ GLS 51	5 Selling Units (25 discs)	319073

**1 pack (minimum order quantity) = 5 Selling Units = 25 discs**



## Retail range

### Coated abrasives

Abrasive screen, self-fastening, waterproof

# AN 400

## Retail packs

# NEW



### Properties

Bonding agent	Resin
Grain	Aluminium oxide
Backing	Polyester screen

### Applications:

Paint/Varnish/Filler	●	Composite materials	●
Gel coats	●	Wood	●
Plaster	●	Wood-based materials	●
Plasterboard walls	●		



**Advantages:** Effective and full-surface dust extraction thanks to open grid structure - Dust-free grinding extends the service life of the abrasive - At the same time, improved health and safety thanks to reduced dust formation at the workstation - Independent of existing extraction hole patterns - Waterproof

Available grits:

16	24	30	36	40	50	60	80	100	120	150	180	220	240	280	320	360	400	500	600	800	1000	1200	1500	2000	2500	3000
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Diameter in mm	Grit	Hole pattern	Content of 1 pack	Cat. number
225	5 x Grit 80 discs	● Screen	5 Selling Units (25 discs)	360278
225	5 x Grit 120 discs	● Screen	5 Selling Units (25 discs)	360279
225	5 x Grit 180 discs	● Screen	5 Selling Units (25 discs)	360282
225	5 x Grit 240 discs	● Screen	5 Selling Units (25 discs)	360280
225	5 x Grit 320 discs	● Screen	5 Selling Units (25 discs)	360281

1 pack (minimum order quantity) = 5 Selling Units = 25 discs

Protection pad, self-fastening

# PP 555

## Retail packs



**Advantages:** Improvement of adhesion and protection of the backing pad on random orbital sanders

Diameter in mm	Suitable for	Content of 1 pack	Cat. number
150	Random orbital sander	2 pads	358148
225	Drywall sander	2 pads	370662

1 pack (minimum order quantity) = 1 Selling Unit = 2 protection pads

Hand block, self fastening

## HBD 150



**NEW**



**Advantages:** Very suitable for surface and edge grinding - Fatigue-proof hand sanding due to ergonomic form - For self-fastening discs in diameter 150 mm - Self-fastening

Diameter in mm	Packing unit/pcs.	Cat. number
150	1	387044

Non-woven web hand pad, waterproof

## NPA 400



### Properties

Bonding agent	Resin
Grain	Aluminium oxide
Non-woven material type	Soft non-woven material

### Applications:

Stainless steel	●	Plastic	●
Metals	●		
Wood	●		
Paint/Varnish	●		

**Advantages:** Outstanding for surface finishing, e.g. adaptation to an existing surface scratch pattern - Can be used wet and dry

Width x Length in mm	Colour	Grade	Content of 1 selling unit	Content of 1 pack	Cat. number
152 x 229	maroon	very fine	box of 20	4 pads	358999
152 x 229	dark green	very fine general purpose	box of 20	4 pads	359000

Box (minimum order quantity) = 20 pads

Non-woven web hand pad, waterproof

## NPA 500



### Properties

Bonding agent	Resin
Grain	SiC
Non-woven material type	Soft non-woven material

### Applications:

Paint/Varnish	●	Wood	●
Plastic	●		
Stainless steel	●		
Metals	●		

**Advantages:** Outstanding for surface finishing, e.g. adaptation to an existing surface scratch pattern - Can be used wet and dry

Width x Length in mm	Colour	Grade	Content of 1 selling unit	Content of 1 pack	Cat. number
152 x 229	black	medium	box of 20	4 pads	358998

Box (minimum order quantity) = 20 pads

## Retail range

Non-woven web / Flexible abrasives

*Quick Change Disc*

### Quick Change Discs Set with Adaptor



**Advantages:** Convenient hang pack containing a variety of grades of discs with holders to suit

Diameter in mm	Content of 1 selling unit	Content of 1 pack	Cat. number
50	7 discs + 1 backing pad + 1 adaptor	1 Selling Unit	351333
76	7 discs + 1 backing pad + 1 adaptor	1 Selling Unit	351332

**Pack contains 3 surface conditioning discs (Coarse, Medium and Fine), and 3 zirconia grain discs (1x36, 2x60, 1x80, 1xC/M/F)**

*Quick Change Disc*

### Quick Change Discs Refill Pack without Holders



**Advantages:** Convenient hang pack containing a variety of grades of discs

Diameter in mm	Content of 1 selling unit	Content of 1 pack	Cat. number
50	10 quick change discs	1 Selling Unit	354096
76	10 quick change discs	1 Selling Unit	354097

**Pack contains 3 Surface conditioning discs (Coarse, Medium and Fine), and 7 zirconia grain discs (2x 36, 3x 60 and 2x 80 grit)**

Abrasive block, flexible, coated on 4 sides, waterproof

## SK 500

### Retail packs



**NEW**



#### Properties

Grain	Aluminium oxide
Coating	Close

#### Applications:

Paint/Varnish/Filler	●
Wood	●
Plastic	○
Metals	○

**Advantages:** Can be used flat and upright (four usable sides) - For flat and profiled surfaces due to flexible foam core - Robust, washable and reusable

Available grits:

16	24	30	36	40	50	60	80	100	120	150	180	220	240	280	320	360	400	500	600	800	1000	1200	1500	2000	2500	3000
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Width x Length x Height in mm	Grit	Density	Grit color	Foam color	Content of 1 selling unit	Content of 1 pack	Cat. number
70 x 100 x 25	80	hard	brown	grey	box of 32	1 piece	670005
70 x 100 x 25	120	hard	brown	grey	box of 32	1 piece	670006

Box (minimum order quantity) = 32 blocks

Abrasive block, flexible, coated on 4 sides, waterproof

## SK 700 A

### Retail packs



**NEW**



#### Properties

Grain	Aluminium oxide
Coating	Close

#### Applications:

Paint/Varnish/Filler	●
Wood	●
Plastic	○
Metals	○

**Advantages:** Suitable for flat or upright use on all four sides - The angled edge (approx. 45°) makes it an exceptional choice for narrow, tapering workpiece contours - Excellent contouring and pressure distribution thanks to flexible foam core - Robust, washable and reusable

Available grits:

16	24	30	36	40	50	60	80	100	120	150	180	220	240	280	320	360	400	500	600	800	1000	1200	1500	2000	2500	3000
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Width x Length x Height in mm	Grit	Density	Grit color	Foam color	Content of 1 selling unit	Content of 1 pack	Cat. number
89 x 125 x 25	80	hard	brown	grey	box of 18	1 piece	670008
89 x 125 x 25	120	hard	brown	grey	box of 18	1 piece	670007

Box (minimum order quantity) = 18 blocks



## Retail range

Abrasive sponge / Small flap wheel

Abrasive sponge, flexible, coated on 2 sides, waterproof

### SW 501

#### Retail packs



##### Properties

Grain	Aluminium oxide
Coating	Close

##### Applications:

Paint/Varnish/Filler	●
Wood	●
Plastic	○
Metals	○

**Advantages:** Satin surface scratch pattern - For low and high profiled surfaces (two usable sides) - Crease and break resistant - Washable and reusable

## NEW



Available grits:

16	24	30	36	40	50	60	80	100	120	150	180	220	240	280	320	360	400	500	600	800	1000	1200	1500	2000	2500	3000
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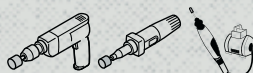
Width x Length x Height in mm	Grit	Density	Grit color	Foam color	Content of 1 selling unit	Content of 1 pack	Cat. number
96 x 123 x 12,5	120	soft	brown	yellow	box of 28	2 pieces	367320
96 x 123 x 12,5	220	soft	brown	yellow	box of 28	2 pieces	367319

**Box (minimum order quantity) = 14 packs of 2 sponges**

Small flap wheel

### KM 613

#### Retail packs



##### Properties

Bonding agent Resin	
Grain	Aluminium oxide

##### Applications:

Stainless steel	●
Metals	●
Wood	○
Plastic	○

**Advantages:** Universal product for steel and stainless steel materials - Even removal rate - Suitable for use in hard-to-reach areas

## NEW



Available grits:

16	24	30	36	40	50	60	80	100	120	150	180	220	240	280	320	360	400	500	600	800	1000	1200	1500	2000	2500	3000
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Diameter x Width x Shaft in mm	Grit	Max. operating speed	Max. RPM	Content of 1 selling unit	Cat. number
40 x 20 x 6	40	40 m/s	19000 rpm	36 pieces	360285
40 x 20 x 6	60	40 m/s	19000 rpm	36 pieces	360286
40 x 20 x 6	80	40 m/s	19000 rpm	36 pieces	360287
60 x 30 x 6	40	40 m/s	12700 rpm	24 pieces	360290
60 x 30 x 6	60	40 m/s	12700 rpm	24 pieces	360289
60 x 30 x 6	80	40 m/s	12700 rpm	24 pieces	360288
80 x 30 x 6	40	40 m/s	9500 rpm	20 pieces	366998
80 x 30 x 6	60	40 m/s	9500 rpm	20 pieces	366997
80 x 30 x 6	80	40 m/s	9500 rpm	20 pieces	366996

**1 pack (minimum order quantity) = 1 Selling Unit = Ø 40 mm 36 pcs., Ø 60 mm 24 pcs., Ø 80 mm 20 pcs.**

## Retail range

Flap discs / Cutting-off wheels



Mini abrasive flap disc

### MST 924 SPECIAL

#### Retail packs



Class	SPECIAL
Aggression	■■■■■■■■■
Service life	■■■■■■■■■

Applications:	
Steel	●
Stainless steel	●

Properties	
Backing plate	Plastic, glass-fibre reinforced
Design	Convex 6°

**NEW** !

**Advantages:** Aggressive stock removal due to self-sharpening ceramic grain - Ideal for working on hard-to-reach areas - For coarse grinding tasks on high alloy steels and stainless steel materials

Diameter in mm	Grit	Max. operating speed	Max. RPM	Content of 1 selling unit	Content of 1 pack	Cat. number
50	several grain sizes	80 m/s	30000 rpm	3 flap discs	1 Selling Unit	671316
75	several grain sizes	80 m/s	20000 rpm	3 flap discs	1 Selling Unit	671315

1 pack (minimum order quantity) = 1 Selling Unit

Cutting-off wheel

### A 60 TZ SPECIAL

#### Retail packs



Class	SPECIAL
Bond	■■■■■□□
Aggression	■■■■■□□
Service life	■■■■■□□

Applications:	
Stainless steel	●
Steel	●
NF metals	○

**Advantages:** Free of iron, sulfur and chlorine - Short cutting times - Minimal burr formation - Low thermal load

Diameter x Width x Bore in mm	Form	Max. operating speed	Max. RPM	Content of 1 selling unit	Content of 1 pack	Cat. number
100 x 1 x 16	—	80 m/s	15300 rpm	10 wheels	5 selling units (50 wheels)	326295
115 x 1 x 22,23	—	80 m/s	13300 rpm	10 wheels	5 selling units (50 wheels)	326296
125 x 1 x 22,23	—	80 m/s	12200 rpm	10 wheels	5 selling units (50 wheels)	326297

1 pack (minimum order quantity) = 50 cutting-off wheels

## Retail range

### Cutting-off wheels

Cutting-off wheel

## A 60 TZ SPECIAL



Class	SPECIAL
Bond	■■■■■□
Aggression	■■■■■□
Service life	■■■■■□

Applications:	
Stainless steel	●
Steel	●
NF metals	⦿

**Advantages:** Free of iron, sulphur and chlorine - Fast cutting - Minimal burr formation - Low thermal load - 10 pieces in a tin with viewing window for easy removal

Diameter x Width x Bore in mm	Form	Max. operating speed	Max. RPM	Packing unit/tin	Cat. number
115 x 1 x 22,23	—	80 m/s	13300 rpm	10 wheels	310503
125 x 1 x 22,23	—	80 m/s	12200 rpm	10 wheels	310504

Minimum order quantity = 5 tins

Cutting-off wheel

## A 60 TZ SPECIAL



**NEW**

Class	SPECIAL
Bond	■■■■■□
Aggression	■■■■■□
Service life	■■■■■□

Applications:	
Stainless steel	●
Steel	●
NF metals	⦿

**Advantages:** High performance cutting off wheel for processing thin walled sections, pipes and small cross sections - Excellent cutting performance and long tool life. Suitable for cutting steel & stainless steel (INOX) Each bucket contains 100 of Klingspor's biggest selling 125x1mm ultrathin cutting discs. Bonus storage tub included.

Diameter x Width x Bore in mm	Form	Max. operating speed	Max. RPM	Content of 1 pack	Cat. number
125 x 1 x 22,23	—	80 m/s	12200 rpm	100 wheels	355434

Minimum order quantity = 1 bucket

*Diamond cutting blade*

## DT 310 UT EXTRA



### Properties

Design	Sintered
Segmentation	Turbo continuous rim
Aggression	■ ■ ■ ■ □ □
Service life	■ ■ ■ ■ □ □



### Applications:

Construction materials	●
Concrete, universal	●
Roof tiles	●

**Advantages:** All-purpose - Excellent cutting performance, great price-performance ratio - Turbo segments for clean and nick-free edges - Ideal for roofers - For cutting clay and roof tiles

Diameter x Bore in mm	Max. operating speed	Max. RPM	Segment in mm Number / Length / Width / Height	Content of 1 pack	Cat. number
100 x 16 / 22,23	80 m/s	15300 rpm	CR / CR / 2 / 10	1 blade	334087
115 x 22,23	80 m/s	13300 rpm	CR / CR / 2 / 10	1 blade	334088
125 x 22,23	80 m/s	12200 rpm	CR / CR / 2 / 10	1 blade	334089
230 x 22,23	80 m/s	6600 rpm	CR / CR / 2,5 / 10	1 blade	334091

*Diamond cutting blade*

## DT 350 U EXTRA



### Properties

Design	Laser welded
Segmentation	Standard
Aggression	■ ■ ■ ■ □ □
Service life	■ ■ ■ ■ □ □



### Applications:

Construction materials	●
Concrete, universal	●

**Advantages:** Product with laser-welded standard segments for universal use on general construction material - Smooth, fast and low-vibration cutting with unmatched service life - Optimum price-performance ratio

Diameter x Bore in mm	Max. operating speed	Max. RPM	Segment in mm Number / Length / Width / Height	Content of 1 pack	Cat. number
115 x 22,23	80 m/s	13300 rpm	8 / 33 / 2,4 / 10	1 blade	336214
125 x 22,23	80 m/s	12200 rpm	9 / 33 / 2,4 / 10	1 blade	336215
230 x 22,23	80 m/s	6600 rpm	15 / 42 / 2,6 / 10	1 blade	336219



## Retail range

### Diamond cutting blades

Diamond cutting blade

### DT 300 F EXTRA



#### Properties

Design	Sintered
Segmentation	Continuous rim
Aggression	■■■■□□□□
Service life	■■■■□□□□



#### Applications:

Tiles	●
Stove tiles	●

**Advantages:** Clean edges when used for cutting tiles - Attractively priced quality wheel

Diameter x Bore in mm	Max. operating speed	Max. RPM	Segment in mm Number / Length / Width / Height	Content of 1 pack	Cat. number
100 x 16 / 22,23	80 m/s	15300 rpm	CR / CR / 1,6 / 7	1 blade	330623
115 x 22,23	80 m/s	13300 rpm	CR / CR / 1,6 / 7	1 blade	325357
125 x 22,23	80 m/s	12200 rpm	CR / CR / 1,6 / 7	1 blade	325358

Diamond cup grinding wheel

### DS 300 B EXTRA



#### Properties

Design	Brazed
Segmentation	Standard
Aggression	■■■■□□□□
Service life	■■■■□□□□



#### Applications:

Concrete	●
Screed	●
Construction materials	●

**Advantages:** Double row cup grinding wheel with outstanding stock removal performance - High aggressiveness at low force requirements - Exceptional price-performance ratio - M14 adapter available, see DZ 114


Diameter x Bore in mm	Cup grinding wheel height in mm	Max. operating speed	Max. RPM	Segment in mm Number / Width / Height	Content of 1 pack	Cat. number
100 x 16 / 22,23	20	80 m/s	15300 rpm	14 / 7 / 5,5	1 wheel	330622
125 x 22,23	24,5	80 m/s	12200 rpm	18 / 7 / 5	1 wheel	325362
180 x 22,23	30,5	80 m/s	8500 rpm	22 / 8 / 5	1 wheel	325363







Diamond cutting blade

DT 350 U

EXTRA





Properties

Design

Laser welded

Segmentation

Standard

Aggression

■

■

■

■

■

■

□

□

Service life

■

■

■

■

■

□

□

Applications:

Construction materials

●

Concrete, universal

●

Advantages:

Product with laser-welded standard segments for universal use on general construction materials - Smooth, fast and low-vibration cutting with unmatched service life - Optimum price-performance ratio

Diameter x Bore in mm	Max. operating speed	Max. RPM	Segment in mm Number / Length / Width / Height	Content of 1 pack	Cat. number
350 x 25,4	100 m/s	5500 rpm	24 / 40 / 3 / 10	1 blade	336221
400 x 25,4	100 m/s	4800 rpm	28 / 40 / 3,6 / 10	1 blade	347486

# Safety recommendations

## General Principles of Safety

Abrasive products improperly used can be very dangerous.

- ▶ Always follow the instructions provided by the abrasive product and machine supplier.
  - ▶ Ensure that the abrasive product is suitable for its intended use. Examine all abrasive products for damage or defects before use.
  - ▶ Follow the correct procedures for handling and storage of abrasive products.
- Be aware of the hazards likely during the use of abrasive products and observe the recommended precautions to be taken:
- ▶ Bodily contact with the abrasive product at operating speed.
  - ▶ Injury resulting from product breakage during use.
  - ▶ Grinding debris, sparks, fumes and dust generated by the grinding process.
  - ▶ Noise
  - ▶ Vibration

Use only abrasive products conforming to the highest standards of safety. These products will bear the relevant EN standard number and/or the inscription "oSa":

- ▶ EN 12413 for Bonded Abrasives.
- ▶ EN 13236 for Superabrasives.
- ▶ EN 13743 for Specific Coated Abrasives (vulcanised fibre discs, flap wheels, flap discs and spindle-mounted flap wheels).

Never use a machine that is not in good working order or one with defective parts. Employers should carry out a risk assessment on all individual abrasive processes to determine the appropriate protective measures necessary. They should ensure that their employees are suitably trained to carry out their duties.

More detailed information on the safe use of abrasive products, comprehensive Safety Codes are available from FEPA or your National Trade Association.

- ▶ FEPA Safety Code for Bonded Abrasives and Precision Superabrasives.
- ▶ FEPA Safety Code for Superabrasives for Stone and Construction.
- ▶ FEPA Safety Code for Coated Abrasives.

## Precautions against likely hazards

### Bodily contact with the abrasive product

- ▶ Always take great care and attention when using abrasive products. Tie back long hair and do not wear loose clothing, ties or jewellery.
- ▶ Prevent accidental start up of the machine before mounting or changing an abrasive product. Isolate machines from their power source where necessary.
- ▶ Never remove guards from machines where fitted and ensure they are in good condition and properly adjusted before starting the machine.
- ▶ Always use gloves and suitable clothing where the workpiece or machine is handheld. For gloves, a minimum protection level of EN 388 Category 2 is recommended.
- ▶ After switching off the machine, ensure the product has come to rest before leaving the machine unattended.

## Injury caused by product breakage

- ▶ Always handle abrasives with great care, they are easily damaged. Examine all products for defects or damage before use.
- ▶ Store abrasives in dry, frost-free conditions avoiding wide variations in temperature. Ensure they are properly protected and supported to prevent damage and distortion.
- ▶ Coated abrasives remain usable for at least 5 years if stored in temperatures of 18-22 °C and at a relative humidity of 45-65 % and if protected against mechanical impact and the effects of radiation, chemicals, mould and other micro-organisms.
- ▶ Abrasive belts should be hung on a rod or peg not less than 50mm diameter.
- ▶ Never use an abrasive product beyond its expiry date where marked. Observe the recommended shelf life for the following specific products; Resinoid and Shellac products 3 years, Rubber products 5 years, Vitrified products 10 years.
- ▶ Check abrasive product or package for any warnings or other safety information.
- ▶ Ensure that the correct abrasive product is selected. Never use a product if it cannot be properly identified.
- ▶ Follow the instructions provided by the abrasive product or machine supplier when mounting abrasive products. Observe any mounting indications marked on the product such as direction of run or mounting position.
- ▶ Never force the abrasive product onto the mounting fixture or modify it to fit.
- ▶ Never exceed the maximum operating speed where specified.
- ▶ Check that the correct mounting devices are used and that they are undistorted, clean and free from burrs.
- ▶ Use mounting blotters where supplied.
- ▶ Do not tighten the mounting device excessively.
- ▶ After mounting or re-mounting an abrasive product, conduct a trial run at operating speed with the guard in place for at least 30 seconds, standing clear of the machine before use.
- ▶ Never remove guards from machines where fitted and ensure they are in good condition and properly adjusted.
- ▶ Ensure that the workpiece is secure and properly supported. Ensure that work rests are properly adjusted and secure.
- ▶ Never start the machine with the workpiece in contact with the abrasive product.
- ▶ Never apply excessive force or shock to the abrasive product or let it overheat.
- ▶ Do not grind on the part of the product that is not designed for the operation.
- ▶ Avoid grinding with the edge of abrasive belts, use the centre of the belt if possible.
- ▶ Avoid clogging and uneven wear to ensure that the abrasive product is working efficiently. Dress frequently where appropriate.
- ▶ Let the abrasive product stop naturally, not by applying pressure to its surface.
- ▶ Turn off and spin out excess coolant before stopping the machine.
- ▶ Do not leave abrasive belts under tension when not in use.



Not permitted for handheld or manually-guided grinding



Do not use for wet grinding



Not permitted for face grinding



Do not use if damaged



Only permitted with a backing pad



Use ear protectors



Observe safety instructions



Wear safety gloves to protect hands



Wear safety goggles or glasses to protect the eyes



Wear a dust mask



Only permitted for wet cutting



Only permitted for use on totally enclosed machines

## Grinding debris – sparks, dust and fumes

- ▶ Exposure to dust generated from workpiece and/or abrasive materials can result in lung damage and/or other physical injury.
- ▶ All dry grinding processes should be provided with adequate extraction facilities.
- ▶ Do not use abrasive products near flammable materials.
- ▶ The use of respirators complying with EN149 is recommended for dry grinding processes even if extraction systems are provided.
- ▶ Guards where provided should be adjusted to deflect sparks and debris away from the operator.
- ▶ Take additional measures to protect people working nearby.
- ▶ Eye protection is recommended for all machine applications for abrasives. For handheld machines or workpiece, goggles or full face shields are recommended.
- ▶ Eye protection with a minimum protection of EN166 Grade B is recommended.
- ▶ Ensure that the correct abrasive product is selected. An unsuitable product can produce excessive debris and dust.

## Noise

- ▶ Ear protection complying with EN352 is recommended for all applications where the workpiece or machine is handheld, irrespective of the noise level.
- ▶ Ensure that the correct abrasive product is selected. An unsuitable product can produce excessive noise.

## Vibration

- ▶ Processes where the workpiece or machine is handheld can cause vibration injury.
- ▶ Action needs to be taken if tingling, pins and needles or numbness is experienced after 10 minutes continuous use of the abrasive product.
- ▶ The effects of vibration are more pronounced in cold conditions so keep the hands warm and exercise hands and fingers regularly. Use modern equipment with low vibration levels.
- ▶ Maintain all equipment in good condition and stop the machine and have it checked if excessive vibration occurs.
- ▶ Use good quality abrasive products and keep them in good condition during their life.
- ▶ Maintain mounting flanges and backing pads in good condition and replace if worn or distorted.
- ▶ Do not grip the workpiece or machine too tightly and do not exert excessive pressure on the abrasive product.
- ▶ Avoid continuous use of the abrasive product.
- ▶ Use the correct product. An unsuitable product can produce excessive vibration.
- ▶ Don't ignore the physical symptoms of vibration – seek medical advice.

## Disposal of abrasives

- ▶ Used or defective abrasives should be disposed in accordance with local or national regulations.
- ▶ Further information can be obtained from material safety data sheets provided by the supplier.
- ▶ Be aware that the abrasive product may be contaminated with material from the workpiece or process after use.
- ▶ Disposed abrasive products should be damaged to prevent them from being taken from waste skips and re-used.

## SAFETY RECOMMENDATIONS FOR THE USE OF ABRASIVE BELTS

### 1. General safety recommendations

- ▶ Ensure that quality and dimensions of the belt are correct for the machine and type of application. Refer to the machine manufacturer's instructions.
- ▶ Do not use near easily flammable material.
- ▶ Prevent long hair, loose clothes or jewellery from getting into contact with the machine and being pulled in. Take precautionary measures.
- ▶ Ensure that people nearby are protected from chips, sparks, debris, fumes, dust and noise. Belt grinding operations may produce high concentrations of dust, gas or mist, which can represent a health hazard as well as a risk of explosion.
- ▶ Do not open the guard or put down the machine until the belt has come to a complete standstill.

### 2. Specific safety recommendations

- ▶ Abrasive belts can tear. Please take precautions against risks by tearing of belt (e.g. protective clothing and devices, safety equipment of machinery).
- ▶ Abrasive machines, which do not have a completely closed guard require comprehensive protective equipment of the user (e.g. protective gloves, leather aprons, face shield, dust mask).
- ▶ Check the locking mechanism of the machine cover. Do not remove guards. Any contact with running belts can result in serious injuries.
- ▶ When mounting, refer to direction of running advice, if necessary.
- ▶ Make sure the workpiece is held correctly or is mechanically secured.
- ▶ Start the machine and wait until belt has reached its full operational speed before grinding.
- ▶ Belts should only be used dry unless specified as suitable for wet grinding (please contact the manufacturer if in any doubt).
- ▶ Use the centre of the belt, if possible, and grind as flat as possible. Avoid grinding with the edge of the belt as well as strong punctual loading e.g. through sharp or sharp-edged workpieces.
- ▶ Do not exert excessive pressure and prevent the belt from overheating.
- ▶ Check the belts in use periodically for wear and tear or damage (e.g. cracks at edges, fracturing or strong wear and tear in the joint) and replace the belts if necessary.

Due to the extraordinary variety of applications and machine constructions, these recommendations are limited to basic aspects of safety. Further safety regulations and instructions can be taken from the respective legislation, decrees and technical standards.



# KLINGSPOR AUSTRALIA PTY. LTD.

## TERMS AND CONDITIONS OF SALE

### 1. DEFINITIONS & INTERPRETATION

#### 1.1 Definitions

**"Buyer"** means the person who buys or agrees to buy the goods from the Company whose name and address are set out in the box marked "Buyer" overleaf.

**"Company"** means Klingspor Australia Pty Limited ACN 092 623 142.

**"Conditions"** means the terms and conditions of sale set out in this document and any special terms and conditions agreed in writing by the Company.

**"Delivery"** means when the Product is loaded and dispatched from the Company's warehouse or the commencement date for the performance of services.

**"Delivery Date"** means the date or range of dates set out overleaf which is specified by the Company when or within which range the Product is to be delivered.

**"Price"** means the Company's quoted price or the price set out overleaf at which the Buyer agrees to buy the Product.

**"Product"** means the goods which the Buyer agrees to buy from the Company in the quantity specified overleaf.

#### 1.2 Interpretation

The following rules of interpretation shall apply to this Agreement:

(a) Words importing the singular will include the plural and vice versa and words importing any gender will include all genders and words importing a person shall include any other entity recognised by law and vice versa.

(b) Where the day on or by which any act matter or thing is required to be done is a day other than a Business Day in the place in which the act matter or thing is to be done, such act matter or thing shall be done on the next succeeding Business Day unless specifically provided for to the contrary in this Agreement.

(c) Headings and underlinings are for convenience only and do not affect the interpretation of this Agreement.

### 2. CONDITIONS APPLICABLE

2.1 These conditions shall apply to all contracts for the sale of Product by the Company to the Buyer to the exclusion of all other terms and conditions including any terms or conditions which the Buyer may purport to apply under any purchase order, confirmation of order or similar document.

2.2 All orders for Product shall be deemed to be an offer by the Buyer to purchase Product pursuant to these Conditions.

2.3 Any variation to these Conditions (including any special terms and conditions agreed between the parties) shall be inapplicable unless agreed in writing by the Company.

### 3. THE PRICE AND PAYMENT

3.1 The Price shall be the Company's quoted price or, if these terms are affixed to a purchase agreement or order confirmation, the price set out overleaf.

3.2 Unless otherwise stated all prices quoted by vendor are net, exclusive of Goods and Services Tax (GST).

3.3 The minimum value for all orders made by the Buyer to purchase Product from the Company shall be one hundred and seventy dollars (\$170.00) plus GST.

3.4 The Company may after acceptance of a customer's order, by giving notice to the Buyer at any time up to fourteen (14) days before delivery, increase the Price of the Product to reflect any increase in the cost to the Company which is due to factors occurring after the making of this Sales Agreement which are beyond the reasonable control of the Company (including, without limitation, foreign exchange fluctuations, taxes and duties and the cost of labour, materials and other manufacturing, transportation, and transportation related costs) provided that any such increase shall be limited to two per cent (2%) of the agreed Price. Foregoing clause 3.4 does not affect Company's right to adjust its pricing before acceptance of an order.

3.5 Payment of the Price shall be due within thirty (30) days of the date of statement and time for payment shall be of the essence.

3.6 Interest on overdue invoices shall accrue from the date when payment becomes due from day to day until the date of payment at a rate of fifteen per cent (15%) p.a. and shall accrue at such rate after as well as before any judgment.

3.7 The Buyer acknowledges and agrees any expenses costs or disbursements incurred by the Company in recovering any outstanding monies including debt collection agencies fees or legal fees, shall be recoverable from the Buyer on an indemnity basis.

3.8 Unless previously withdrawn, the Company's quotations are open for acceptance within the period stated in them or, when no period is so stated, within fourteen (14) days only after its date. The Company reserves the right to refuse any purchase order based on its quotation within seven (7) days after the receipt of the purchase order.

### 4. THE PRODUCT

4.1 The quantity and description of the Product shall be as set out respective offer, purchase agreement or order confirmation and as described in the product specifications issued by Company.

4.2 The Buyer shall take delivery of the Product tendered notwithstanding that the quantity so delivered shall be either greater or less than the quantity purchased provided that:

- (a) the Buyer shall have given the Company notice in writing within twenty-four (24) hours of delivery of the discrepancy in quantity;
- (b) such discrepancy in quantity shall not exceed five per cent (5%);
- (c) the Price shall be adjusted pro rata to reflect any discrepancy; and

(d) if the Buyer fails to give notice in accordance with clause 4.2(a), the Product shall be deemed to be in all respects in accordance with this Agreement and the Buyer shall be bound to accept and pay for the Product accordingly.

### 5. WARRANTIES AND LIABILITIES

5.1 Any performance figures given by the Company are estimates only. The Company is under no liability for damages for failure of the Product to attain such figures unless specifically guaranteed in writing. Any such written guarantees are subject to the recognised tolerances applicable to such figures.

5.2 The Company warrants that the Product will at the time of delivery correspond to the description given by the Company.

### 6. GUARANTEE

6.1 The Company's liability for Product manufactured by it is limited to making good any defects by repairing the defects or at the Company's option by replacement, within a period not exceeding twelve (12) calendar months after the Product has been dispatched so long as:

(a) defects have arisen solely from faulty materials or workmanship;

(b) the Product has not received maltreatment, inattention or interference;

(c) accessories of any kind used by the Buyer are manufactured by or approved by Company;

(d) the seals of any kind on the goods remain unbroken; and

(e) the defective parts are promptly returned free of cost to the Company.

6.2 If the Product is not manufactured by the Company the warranty and/or guarantee of the manufacturer of those goods is accepted by the Buyer and is the only warranty or guarantee given to the Buyer in respect of the Product. The Company agrees to assign to the Buyer on request made by the Buyer the benefit of any warranty or entitlement to the goods that the manufacturer has granted to the Company under any contract or by implication or operation of law to the extent that the benefit of any warranty or entitlement is assignable.

6.3 The Company is not liable for and the Buyer releases the Company from any claims in respect of faulty or defective design of any product supplied unless such design has been wholly prepared by the Company and the responsibility for any claim has been specifically accepted by the Company in writing. In any event, the Company's liability under this Clause 6.3 is limited strictly to the replacement of defective parts in accordance with Clause 6.1 of this Agreement.

6.4 The Company excludes all express and implied conditions and warranties from these terms, except any condition or warranty (such as conditions and warranties implied by the Competition and Consumer Act 2010 (Cth) and equivalent State and Territory laws) which cannot by law be excluded ("Non-excludable Condition").

6.5 The Company's liability for breach of any Non-excludable Condition (to the extent such liability can be limited) arising in relation to the supply of goods other than goods of a kind ordinarily acquired for personal, domestic or household use or consumption, shall at the Company's option be limited to:

(a) the replacement of the goods or resupply of the goods by the Company, or the cost of replacement or resupply of the goods; or

(b) the repair of the goods, or the cost of repair of the goods.

6.6 Subject to clauses 6.4 and 6.5, the Company excludes all other liability to the Buyer for physical or financial injury, loss or damage or for consequential loss or damage of any kind arising out of the supply, layout, assembly, installation or operation of the Product or arising out of the Company's negligence or in any way whatsoever.

### 7. DELIVERY

7.1 The delivery times made known to the Buyer are estimates only and the Company is not be liable for late delivery or non-delivery.

7.2 The Company is not be liable for any loss and/or expense (including loss of profit), damage or delay occasioned to the Buyer or its customers arising from late or non-delivery or late installation of the Product.

7.3 The Company may at its option deliver the Product to the buyer in any number of instalments unless there is an endorsement overleaf to the effect that the buyer will not take delivery by instalments.

7.4 If the Company delivers any of the Product by instalments, and any one of those instalments is defective for any reason:

(a) it is not a repudiation of the Sales Agreement formed by these terms and conditions; and

(b) the defective instalment is a severable breach that gives rise only to a claim for compensation.

7.5 The Company is not responsible to the Buyer or any person claiming through the Buyer for any loss or damage to Product in transit caused by any event of any kind by any person (whether or not the Company is legally responsible for the person who caused or contributed to that loss or damage).

7.6 The Company shall provide the Buyer with such assistance as may be necessary to press claims on carriers so long as the Buyer:

- (a) has notified the Company and the carriers in writing immediately after loss or damage is discovered on receipt of Product; and
- (b) lodges a claim for compensation on the carrier within twenty-four (24) hours of the date of receipt of the Product.

## 8. ACCEPTANCE OF THE PRODUCT

- 8.1 The Buyer shall be deemed to have accepted the Product upon Delivery of the Product.
- 8.2 After acceptance, the Buyer shall not be entitled to reject Product other than in accordance with these terms and conditions.

## 9. TITLE AND RISK

- 9.1 Subject to Clauses 9.3 to 9.15, ownership of the goods shall pass on Delivery of the Product.
- 9.2 The Product shall be at the Buyer's risk as from Delivery.
- 9.3 Notwithstanding that Delivery has already been made, property in the Product shall not pass from the Company until:
  - (a) the Buyer shall have paid the Price in full; and
  - (b) no other sums shall be due from the Buyer to the Company.
- 9.4 Until property in the Product passes to the Buyer in accordance with Clause 9.3, the Buyer shall hold the Product on a fiduciary basis as bailee for the Company. The Buyer shall store the Product (at no cost to the Company) separately from all other goods in its possession and marked in such a way that they are clearly identified as the Company's property.
- 9.5 Notwithstanding that the Product remains the property of the Company, the Buyer may sell or use the Product in the ordinary course of the Buyer's business at full market value for the account of the Company. Any such sale or dealing shall be a sale or use of the Company's property by the Buyer on the Buyer's own behalf and the Buyer shall deal as principal when making such sales or dealings. Until property in the Product passes from the Company the entire proceeds of sale or otherwise of the Product shall be held in trust for the Company and shall not be mixed with other money or paid into any overdrawn bank account and shall be at all material times identified as the Company's money.
- 9.6 The Company shall be entitled to recover the Price notwithstanding that property in any of the Product has not passed from the Company.
- 9.7 Until such time as property in the Product passes from the Company, the Buyer shall upon request deliver up such of the Product as has not ceased to be in existence or resold to the Company. If the Buyer fails to do so, the Company may enter upon any premises owned, occupied or controlled by the Buyer where the Product is situated and repossess the Product. On the making of such request, the rights of the Buyer under clause 9.5 shall cease.
- 9.8 The Buyer shall insure and keep insured the Product to the full Price against all risks to the reasonable satisfaction of the Company until the date that property in the Product passes from the Company and shall, whenever requested by the Company, produce a copy of the policy of insurance. Without prejudice to the other rights of the Company, if the Buyer fails to do so, all sums whatever owing by the Buyer to the Company shall immediately become due and payable.
- 9.9 The Buyer acknowledges that these terms and conditions create a security interest under the Personal Property Securities Act 2009 (*Cth*) ("PPSA") in all Product previously supplied by the Company to the Buyer (if any) and all Product that will be supplied in the future by the Company to the Buyer.
- 9.10 In this Clause 9, the following words have the respective meanings given to them under the PPSA: accession, account, financing statement, financing change statement, register, registration, security interest and verification statement.
- 9.11 The Buyer must at the Company's request, promptly execute any documents and do anything required to register the Company's security interest in the Product under the PPSA.
- 9.12 The Buyer consents to the Company effecting a registration on the PPSA register (in any manner the Company considers appropriate) in relation to any security interest contemplated by these terms and conditions and the Buyer agrees to provide all assistance reasonably required to facilitate this.
- 9.13 The Buyer must indemnify, and upon demand reimburse, the Company for all expenses incurred in registering a financing statement or financing change statement on the PPSA register.
- 9.14 The Buyer must not without the prior written consent of the Company, assign or in any way grant a security interest in respect of any accounts owed to it relating to the Product which is the property of the Company. Without prejudice to the other rights of the Company, if the Buyer does so, all sums whatever owing by the Buyer to the Company shall immediately become due and payable.
- 9.15 So far as is permitted by the PPSA, the Buyer waives is right:
  - (a) to receive notice of a verification statement or financing change statement in relation to any registration on the PPSA register;
  - (b) to receive any notice required under the PPSA, including a notice that the Company intends to sell the Product or to retain the Product on enforcement of the security interest granted to the Company;
  - (c) to object to a proposal by the Company to retain the Product in satisfaction of any obligation owed by the Buyer to the Company; and
  - (d) where any Product becomes an accession as defined in the PPSA, to not have any goods damaged when the Company removes the accession, to receive notice of

removal of the accession and to apply to the court for an order concerning the removal of the accession, under the PPSA.

## 10. REMEDIES OF BUYER

- 10.1 Where the Buyer rejects any Product then the Buyer shall have no further rights in respect of the supply to the Buyer of such Product or the failure by the Company to supply Product which conforms to this Sale Agreement.
- 10.2 Where the Buyer accepts or has been deemed to have accepted any Product, the Company shall have no liability whatever to the Buyer in respect of that Product.
- 10.3 The Company shall be under no liability whatever to the Buyer for any indirect loss and/or expense (including loss of profit) suffered by the Buyer arising out of a breach by the Company of this Sales Agreement.
- 10.4 In the event of any breach of this Sales Agreement by the Company, the remedies of the Buyer shall be limited to damages. Under no circumstances shall the liability of the Company exceed the value of the Product.
- 10.5 The Buyer may not withhold payment of any invoice or other amount due to the Company by reason of any right of set-off or counterclaim to which the Buyer may at any time be entitled.
- 10.6 If the Buyer fails to make payment for the Product in accordance with this Agreement or commits any other breach of this Agreement or if a Summons for Winding Up has been filed or a Creditor's Petition has issued against the Buyer or if the Buyer has entered into some other form of insolvency or arrangement or scheme with its creditors whether voluntarily or otherwise, all sums outstanding in respect of the Product shall become immediately payable. The Company may, in its absolute discretion and without prejudice to any other rights which it may have:
  - (a) suspend all future deliveries of Product to the Buyer and/or terminate this Agreement without liability upon its part; and/or
  - (b) exercise any of its rights pursuant to Clauses 9.3 to 9.9 inclusive.

## 11. REBATES AND ASSOCIATED AGREEMENTS

If the Buyer is a member of more than one buying group and therefore entitle to rebates and associated costs, they must nominate which buying group's terms they wish to apply to their Klingspor account. The Buyer cannot claim more than one rebate or associated costs for the same financial transaction with Klingspor. If the Buyer does not nominate a buying group for the rebate or associated cost, Klingspor will nominate a buying group at its discretion.

## 12. SEVERANCE

If any provision or part of any provision of this Agreement is or may be void or unenforceable, such invalidity or unenforceability shall be deemed severable and shall not affect any other part of such provision or any other provision of this contract.

## 13. NO WAIVER

No waiver or forbearance by the Company (whether express or implied) in enforcing this Agreement shall prejudice its right to do so in the future.

## 14. FORCE MAJEURE

The Company shall not be liable for any default of its obligations under this Agreement due to any act of God, war, strike, lockout, industrial action, fire, flood, drought, tempest or other event beyond its reasonable control.

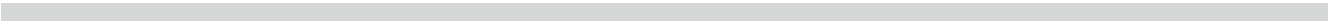
## 15. GOVERNING LAW

The parties agree that this Agreement shall be governed by the laws applicable in the State of New South Wales and agree to submit to the jurisdiction of the Supreme Court of New South Wales and any relevant Court of Australian Federal jurisdiction.

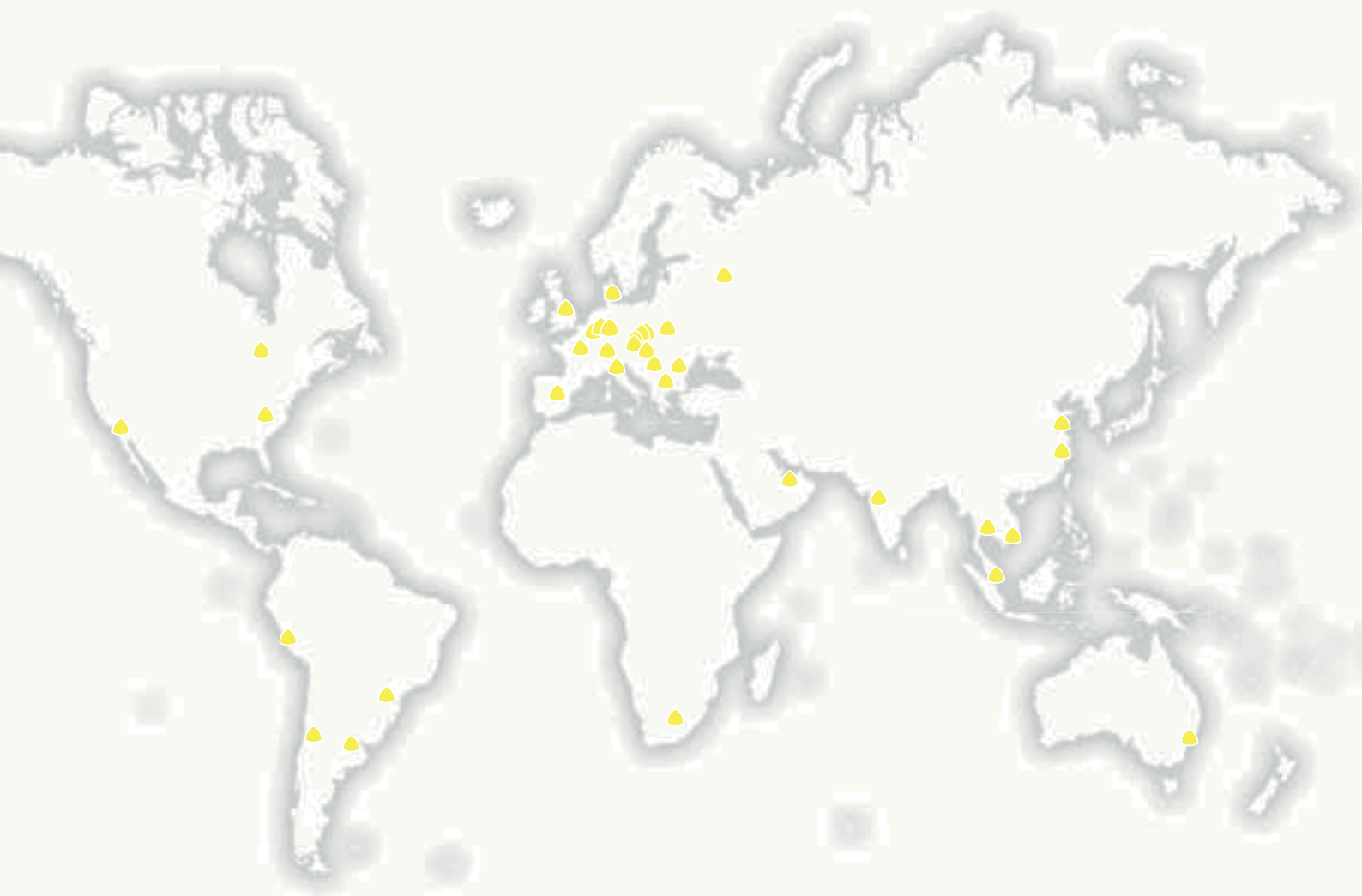
## Notes







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**Klingspor N.V. / S.A.**  
Herent, België / Belgique

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София, България

**KLINGSPOR Brusivo, spol. s r.o.**  
Brno, Česká republika

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**Klingspor Schleifsysteme GmbH & Co. KG**  
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**Klingspor d.o.o. Beograd**  
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**Klingspor Suisse GmbH**  
Bubendorf, Suisse

**Клингспор ТОВ**  
Великі Мости, Львівська обл.,  
Україна

**Klingspor Inc.**  
Stoney Creek, Ontario, Canada

**Klingspor Abrasivos S.A. de C.V.**  
Tijuana, Mexico

**Klingspor Abrasives, Inc.**  
Hickory, North Carolina, USA

**Klingspor Qingdao Ltd.**  
Qingdao, P.R. China

**Klingspor Abrasive (Shanghai) Co. Ltd.**  
Shanghai, P.R. China

**Klingspor India Private Limited**  
Pune, India

**Klingspor PTE LTD**  
Singapore, Singapore

**Klingspor PTE LTD**  
Bangkok, Ratcha-anachak Thai

**Klingspor Middle East FZCO**  
Dubai, United Arab Emirates

**Klingspor Vietnam Limited**  
Ho Chi Minh City, Vietnam

**Klingspor Abrasives South Africa (Pty) Ltd.**  
Spartan-Kempton Park,  
South Africa

**Klingspor Argentina SRL**  
Belén de Escobar, Buenos Aires,  
Argentina

**Klingspor Abrasivos Industriais Ltd**  
Pinhais, Brasil

**Comercial Klingspor Chile Ltda.**  
Pudahuel, Santiago, Chile

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