

# Funcosil FC

Long-lasting protection against driving rain and damp façades?  
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Product solutions



  
remmers

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A DURABLE SOLUTION WITH DECISIVE ADVANTAGES

# Funcosil FC

Makes moisture protection simple and efficient



## THE BENEFITS AT A GLANCE

- ✓ Ready to use – directly from the bucket onto the wall
- ✓ Easy to apply, even when working overhead
- ✓ Low material consumption per m<sup>2</sup>
- ✓ No losses due to material runoff
- ✓ Required quantity can be applied in just one coat
- ✓ No need for time-consuming additional work
- ✓ Long-lasting action thanks to high active ingredient content
- ✓ Excellent value for money

# Water is the main culprit: Damp façades and the consequences

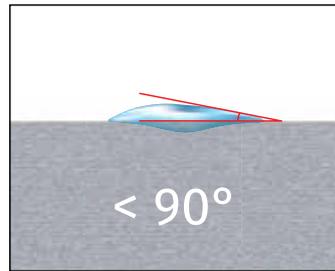
Water plays a central role in the weathering of mineral building materials

## When moisture enters a building material:

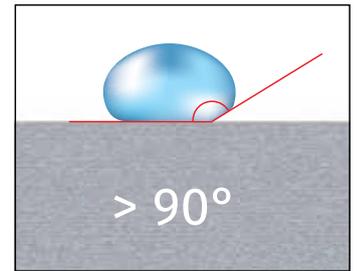
- the absorption of pollutants increases
- frost damage can occur
- the perfect conditions are created for algae, moss and other microorganisms to grow
- the thermal insulation effect decreases significantly

Hydrophobic impregnations significantly reduce the capillary water uptake of a façade that is caused by rain and splashing water. That's why hydrophobic treatment is a sensible measure for preventing damage.

A hydrophobic impregnation makes the treated building material water-repellent, without impairing the open porosity and thus the vapour permeability.



Hydrophilic material (affinity for water)



Hydrophobic material (water repelling)

## What is the surface wetting angle?

The contact or surface wetting angle describes the angle formed by a liquid on the surface of a solid. If the contact angle is  $> 90^\circ$ , then the surface is classed as hydrophobic.



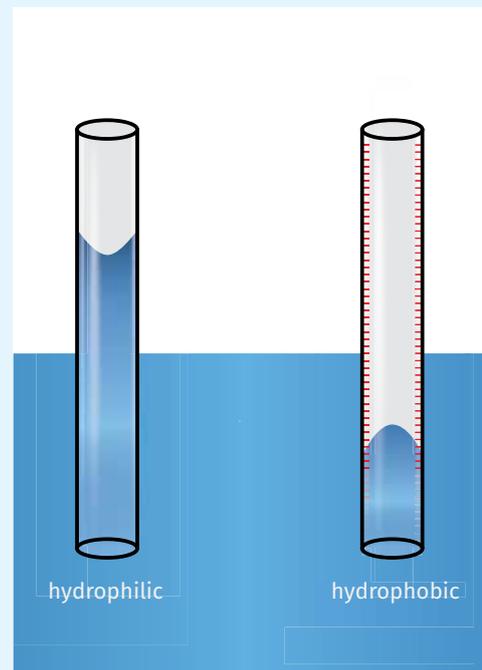
## Water-repelling and vapour-permeable – how does that work?

This phenomenon can be explained with the aid of a simple experiment.

A thin glass tube is placed in a beaker of water, causing the water to rise up into the tube.

The mechanism behind this is the capillary forces. If the glass tube is now made hydrophobic, this effect is reversed; water is no longer “sucked in” but rather forced out.

This is the result of only a single-molecule, nanoscale layer of the hydrophobic agent on the pore walls, meaning that the open cross-section required for vapour diffusion remains virtually unrestricted. Air and water vapour can pass through as before.



# Funcosil FC helps save money – damp prevention is thermal protection

Water is thermally conductive. This means that reducing the moisture content in a building material always leads to an improvement in its thermal insulation properties. On damp brick façades, hydrophobic impregnation is therefore the first port of call if you're looking for a cost-effective way to reduce energy consumption and thus heating costs. Another positive side effect that also helps to combat global warming is the reduction of carbon emissions in the building. In addition, making single-layer brick façades water-repellent often leads to a significant shift in the dew point, thereby reducing the risk of mildew growth indoors.

The creamy consistency of Remmers Funcosil FC ensures that the product has a long contact time on the surface of the building material. The active substances are absorbed into the material during this time. The resulting high penetration depths lead to greater, longer-lasting protection against the ingress of water and pollutants.

**Funcosil FC is setting new standards for the cost-effective hydrophobic treatment of façade surfaces.**

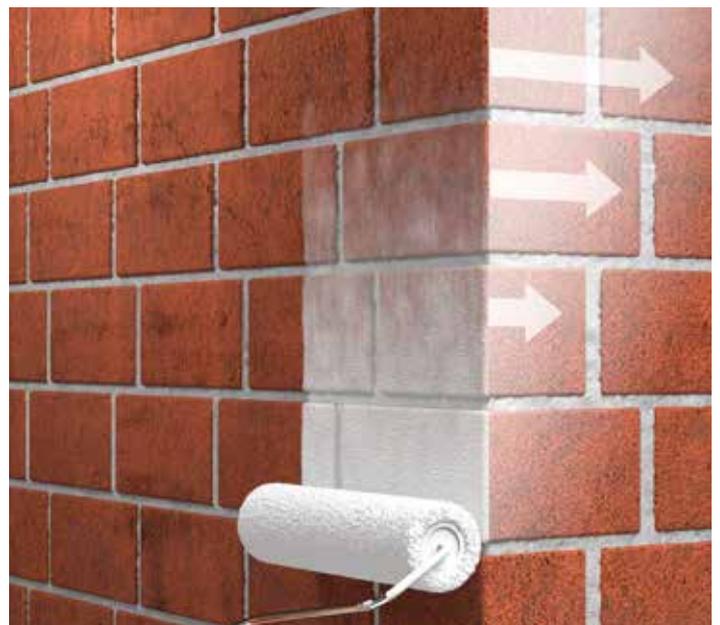


## The advantages of hydrophobic treatment with Funcosil FC

- For your wallet – reduced energy consumption
- For the environment – reduced carbon emissions
- For your health – reduced risk of mildew growth



Thanks to the product's creamy consistency, it is easy to apply in tricky connecting points.



The long contact time of the cream on the surface of the building material ensures a particularly high penetration depth.



## Funcosil Test Kit

Equipment for non-destructive testing of water uptake and effectiveness check of hydrophobic impregnations.

Non-destructive testing with the Funcosil test tube designed by Dr Karsten provides information about how a building material or component behaves under the effect of water. Dr Karsten's water uptake test is suitable for use on the building site and in the laboratory. The test can be carried out on all level, capillary-active or hydrophobic substrates.





# Funcosil FC product family

## Funcosil FC

Moisture protection for  
all mineral substrates

## Funcosil FC Plus

Moisture protection with  
colour intensification

## Funcosil FC Historic

Moisture protection for  
historic and listed façades

## Funcosil FC pro

Moisture protection with  
substrate-specific properties

## Funcosil FC Test Kit

Equipment for non-destructive  
testing of water uptake  
and effectiveness check of  
hydrophobic impregnations



Overview of all system products

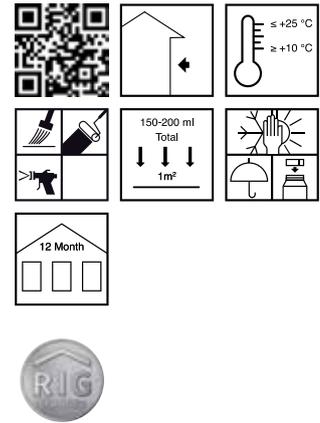


# Funcosil FC

Hydrophobic impregnation in cream form based on silane

Range of use	<ul style="list-style-type: none"> <li>Driving rain protection for façades</li> <li>Reduces risk of dirt accumulation and green discolouration</li> <li>Porous, mineral building materials in exterior areas</li> <li>Driving rain protection for subsequent cavity insulation and interior insulation</li> </ul>
Property profile	<ul style="list-style-type: none"> <li>Highly water repellent</li> <li>Water vapour diffusion open</li> <li>Improves resistance to freeze/thaw stresses</li> <li>Excellent penetration</li> <li>UV-resistant</li> <li>Alkali resistant</li> <li>Excellent long-term effect</li> <li>Easy to apply accurately with no material loss</li> <li>Early resistance to rain, approx. 60 minutes after application</li> </ul>
Application rate	<ul style="list-style-type: none"> <li>Depending on the porosity, in one coat: Approx. 0.15 - 0.20 l/m<sup>2</sup></li> </ul>

Quantity per pallet	288	64	32
Packaging unit	0.75 l	5 l	12.5 l
	Plastic bucket	Plastic bucket	Plastic bucket
Container code	01	05	13
<b>Art. no.</b>			
0711	■	■	■



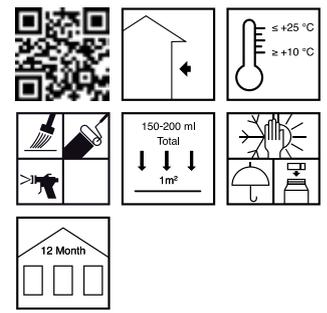
System products	Art. no.
Remmers cleaning products	

# Funcosil FC Historic

Limited capillary-inhibiting impregnation in cream form on a silane base

Range of use	<ul style="list-style-type: none"> <li>Driving rain protection for listed buildings</li> <li>Mineral building materials such as render, brick and natural stone</li> <li>Reduction of capillary water absorption while maintaining residual capillarity</li> </ul>
Property profile	<ul style="list-style-type: none"> <li>Reduces the w value</li> <li>Water vapour diffusion open</li> <li>No water repelling effect</li> <li>Excellent penetration</li> <li>UV-resistant</li> <li>Alkali resistant</li> <li>Mineral water-based</li> <li>Easy to apply accurately with no material loss</li> </ul>
Application rate	<ul style="list-style-type: none"> <li>Depending on the porosity, in one coat: Approx. 0.15 - 0.20 l/m<sup>2</sup></li> </ul>

<b>Quantity per pallet</b>	<b>32</b>
Packaging unit	12.5 l Plastic bucket
Container code	13
<b>Art. no.</b>	
0611	■

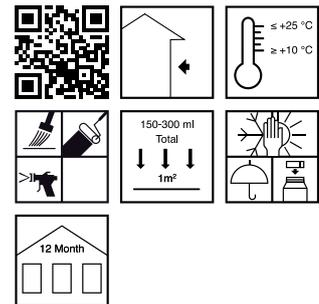


System products	Art. no.
Remmers cleaning products	
*Use biocides safely. Always read the label and product information before use.	

# Funcosil FC PLUS

Hydrophobic impregnation in cream form based on silane/siloxane with colour intensification

Range of use	<ul style="list-style-type: none"> <li>Driving rain protection for façades</li> <li>Reduces risk of dirt accumulation and green discolouration</li> <li>Porous, mineral materials e.g. brick, clinker, sand-lime brick, render</li> <li>Complementary measure for green refurbishments,, in particular for subsequent cavity and interior insulation</li> </ul>
Property profile	<ul style="list-style-type: none"> <li>Repels water</li> <li>Water vapour diffusion open</li> <li>Colour intensifying</li> <li>Excellent penetration</li> <li>UV-resistant</li> <li>Alkali resistant</li> <li>Excellent long-term effect</li> <li>Easy to apply accurately with no material loss</li> <li>Early resistance to rain, approx. 60 minutes after application</li> </ul>
Application rate	<ul style="list-style-type: none"> <li>Depending on the porosity, in one coat: Approx. 0.15 - 0.30 l/m<sup>2</sup></li> </ul>



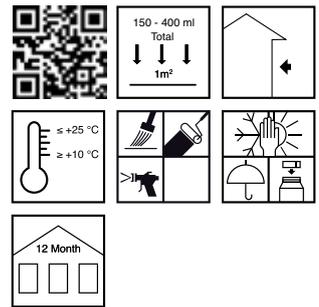
Quantity per pallet	288	64	32
Packaging unit	0.75 l	5 l	12.5 l
	Plastic bucket	Plastic bucket	Plastic bucket
Container code	01	05	13
<b>Art. no.</b>			
0712	■	■	■

System products	Art. no.
*Use biocides safely. Always read the label and product information before use.	

# Funcosil FC pro

Silane-based impregnating cream for substrate-specific adapted hydrophobic treatment

Range of use	<ul style="list-style-type: none"> <li>Adaptive driving rain protection for façades</li> <li>Reduces risk of dirt accumulation and green discoloration</li> <li>Porous, mineral materials e.g. brick, clinker, sand-lime brick, render</li> <li>Complementary measure for green refurbishments,, in particular for capillary-active interior wall insulation</li> <li>Project-specific (adaptive) reduction of capillary water absorption to ensure high re-drying potential (preliminary investigation required)</li> </ul>
Property profile	<ul style="list-style-type: none"> <li>Slows down capillary transport</li> <li>Water vapour diffusion open</li> <li>Excellent penetration</li> <li>UV-resistant</li> <li>Alkali resistant</li> <li>Excellent long-term effect</li> <li>Easy to apply accurately with no material loss</li> </ul>
Application rate	<ul style="list-style-type: none"> <li>Depending on the porosity, in one coat: Approx. 0.15 - 0.40 l/m<sup>2</sup></li> </ul>



<b>Quantity per pallet</b>	<b>32</b>
Packaging unit	12.5 l Plastic bucket
Container code	13
<b>Art. no.</b>	
0703	■
Minimum order quantity: 4 × 12.5 l / Delivery time: Approx. 8 working days	

System products	Art. no.
Remmers cleaning products	
*Use biocides safely. Always read the label and product information before use.	

# Funcosil Test Kit

Equipment for non-destructive testing of water uptake and effectiveness check of hydrophobic impregnations

Range of use	<ul style="list-style-type: none"> <li>Non-destructive testing of water uptake per unit time</li> <li>Effectiveness control of hydrophobic coatings</li> <li>Water absorption coefficient can be estimated according to DIN EN 772-11</li> </ul>
Property profile	<p><b>Contents:</b></p> <ul style="list-style-type: none"> <li>4 x Funcosil test tubes</li> <li>1 x digital stopwatch</li> <li>1 x spray bottle (polyethylene)</li> <li>1 x spatula (width 30 mm)</li> <li>1 x butyl rubber (fastening)</li> </ul>



Packaging unit	1 pc
Container code	01
<b>Art. no.</b>	
4954	■

System products	Art. no.
Funcosil test tube	(4928)

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Other variations are possible.

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**Remmers GmbH**  
Bernhard-Remmers-Straße 13  
49624 Lönigen  
+49 (0) 54 32/83-0