

## Technical Information Sheet Article No. 0711

# Funcosil FC

Impregnation cream in emulsion form on a silane base



### Range of use

Funcosil FC is especially for hydrophobizing impregnation of porous, mineral building materials.

### Property profile

Funcosil FC is a special product for hydrophobizing impregnation of brick, clinker, sand-lime brick, silicate types of natural stone, e.g. OBERNKIRCHENER SAND-STEIN® and mineral render.

### Characteristics:

- Reduction of water absorption with simultaneous
- High diffusion capacity
- Excellent penetration capacity
- Optimal resistance against alkalis
- Strong protective effect against frost/de-icing salt loads
- Cream form and can therefore be applied without loss
- Can be worked over-head
- Early rain tight

Funcosil FC is excellently suited for hydrophobizing mineral building materials. As opposed to conventional liquid products, Funcosil FC can be applied in just one working operation. Depending on porosity,

the effective ingredient penetrates into the substrate where it reacts and becomes a polysiloxane. The initially white layer disappears completely after approx. 10 to 20 minutes.

Funcosil FC has been designed so that the active ingredient penetrates as deeply as possible into the facade which provides optimal protection against the absorption of water and pollutants and therefore also damage caused by frost-/de-icing salt. The water repelling effect takes longer to develop with emulsions and is improved by rain.

### Substrate

The substrate must be in sound condition. Structural defects such as cracks, cracked joints, defective connections, rising damp and hygroscopic moisture must be remedied first.



It must also be ensured that water and damaging salts dissolved in the water cannot penetrate behind the hydrophobized zone.

Surfaces to be impregnated often have poor absorption capacity because of a crust of dirt/patina of various types. The cleaning measures used to restore the original absorption capacity should be as gentle as possible, e.g. by spraying with cold or warm water or by steam cleaning. Stubborn soiling is preferably removed using the Remmers Rotec Low Pressure Blasting Device or one of the Remmers facade cleaning products (see the respective Technical Information Sheet).

When cleaning, make sure that the building material substance is damaged as little as possible. Cleaning agent residue (e.g. surface-active agents) from prior cleaning must be completely washed off since these substances



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## Characteristic data of the product

### Characteristic data of the product in the packaged state:

Effective ingredient content:	approx. 40% by mass
Density:	approx. 0.84 kg/l
Flash point:	> 61° C
Appearance:	milky, white, creamy

### Characteristic data of the product after activation of ingredients:

Polysiloxane content:	approx. 26% by mass
Reduction of water absorbency:	very good
UV stability:	very good
Long term effect:	> 15 years (experience)
Alkali resistance:	up to pH 14

interfere with the hydrophobic effect. Substrates with very little absorption capacity and strongly textured surfaces should be treated with Funcosil SNL or Funcosil WS.

#### Substrate condition:

Absorption of the impregnation agent is a prerequisite for an optimal impregnation effect. This depends on the respective pore volume and moisture content of the building material. For this reason, the substrate should be as dry as possible. High concentrations of salts (especially chlorides, nitrates and sulphates) lead to severe damage that cannot be prevented by a hydrophobic impregnation.

#### Adjacent surfaces:

Building elements that should not come in contact with the impregnation agent (e.g. glass, varnished surfaces and surfaces to be varnished) as well as plants should be covered with polyethylene sheets.

## Directions

Funcosil FC is applied by roller (long-haired lambskin roller), brush or airless equipment. Depending on the absorbency of the substrate, application rates of up to 0.2 l/m<sup>2</sup> can be applied in one working operation even on vertical surfaces and ceilings without a loss of material.

### Working temperature:

A hydrophobizing impregnation is preferably applied in a temperature range between +5 °C and +25 °C. If the surfaces heat too strongly in sun, this can be prevented by awnings. At temperatures below +10 °C, evaporation of the carrier and formation of the active ingredient may be delayed.

### Rain tight:

The impregnation is rain tight approx. 60 minutes after application.

## Notes

To prevent constituents in the product from entering the building, close all windows, doors and other openings during impregnation work; after the impregnation agent has dried, ventilate living space thoroughly.

## Testing effectiveness

Water absorption in mineral building materials before and after the hydrophobizing impregnation measures can be determined by means of the Funcosil Test Plate (Art. No. 0732) or with a test tube developed by Prof. Karsten (Art. No. 4928). Testing should be carried out 6 weeks at the earliest after the hydrophobizing measures have been carried out and the measured data recorded.

## Tools, cleaning

Long-hair lambskin roller, brush  
Airless nozzles:  
No. 523; 50° spraying angle, 0.023 inch bore  
No. 421; 40° spraying angle, 0.021 inch bore

Tools should be dry and clean before using. Clean tools and equipment thoroughly after use and before longer pauses with water.

## Packaging, application rate, shelf-life

### Packaging:

0.75 l, 5 l and 15 l plastic buckets

### Application rate:

Depending on porosity approx. 0.15 to 0.20 l/m<sup>2</sup>. Impregnation agent requirements for calculation and tendering should be determined on a sufficiently large trial area (1-2 m<sup>2</sup>). The effectiveness of this impregnation agent can also be determined on the same area.

### Shelf-life:

At least 12 months in closed, original containers stored cool but frost-free at temperatures between 0° and 30° C.

## Safety, ecology, disposal

Further information on safety when transporting, storing and handling as well as disposal and ecology is found in the latest Safety Data Sheet.

**Personal protective equipment is required for spraying procedures. Use respiratory protection with a combination filter at least A/P2 (made by e.g. Dräger). For suitable protective gloves, see Safety Data Sheet. Wear closed work clothes.**

The statements above are compiled from our field of production and according to the latest technological developments and application techniques.

Since application and working are beyond our control, no liability of the producer can be derived from the contents of this information sheet. Any statements made beyond the contents of this information must be confirmed in writing by the producer.

In all cases, our general conditions of sale are valid. With the publication of this Technical Information Sheet all previous editions are no longer valid.

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Remmers (UK) Limited Crawley  
United Kingdom  
Tel: +44(0) 845 373 0103  
Fax: +44(0)845 373 0104  
[www.remmers.co.uk](http://www.remmers.co.uk)

Remmers India Pvt. Ltd.  
Gurgaon  
Tel: +91 124 400 9131  
Fax: +91 124 400 9134  
[www.remmers.in](http://www.remmers.in)