Technical Information Sheet
Article No. 0704

Funcosil C40
Hydrophobizing impregnation cream on a silane base

Range of use
Funcosil C40 is particularly recommended for deep water repelling treatment and priming of concrete and reinforced concrete in buildings up to C 30/37 and for old, carbonated concrete surfaces. It can also be used on lime and cement renders. Funcosil C40 is not recommended for exposed aggregate concrete or similar. For these applications, use Funcosil BI. For concrete quality classes as of C 35/45 and for bridge and road construction, use Funcosil IC (Art. No. 0710) which is tested according to ZTV-SIB 90, TL/TP OS-A.

Property profile
Funcosil C40 is a special silane product for the water repelling impregnation of concrete and reinforced concrete up to concrete class C 30/37 and for old, carbonated concrete surfaces as well as for lime and cement renders.

Characteristics:
- Excellent penetration capacity (deep water repellency; > 8 mm (Test Report P 2990))
- Optimal resistance against alkalis
- Reduces the absorption of water
- Strong protective effect against frost/de-icing salt loads
- Good adhesion
- Cream consistence, can be applied without any loss
- Single application
- Minimises application errors
- Optimises the application rate
- Visible quality control
- Uniform application
- Minimises masking and covering work

Funcosil C40 is excellently suited for water repelling treatment of concrete and reinforced concrete. As opposed to conventional liquid products, Funcosil C40 is applied in a single working operation. Depending on porosity, the active silane ingredient penetrates into the substrate within a short time (30 min. to several hours) where it reacts, becoming a polysiloxane. The initial white layer completely disappears.

Funcosil C40 has been formulated so that it penetrates as deeply as possible into the concrete, providing optimal protection against the absorption of water and pollutants and preventing damage caused by frost/de-icing salts. Funcosil C40’s water repelling effect takes a while to become effective and improves after becoming wet.
Adjacent surfaces:
Building elements that should not come in contact with the impregnation agent (e.g., glass, varnished surfaces or surfaces to be varnished as well as plants) should be covered with plastic sheets.

Directions
Apply Funcosil C40 with a roller (lambskin), wide brush or airless equipment (observe job safety rules and use respiratory protection).
Depending on the absorbency of the substrate, an application rate of 0.2 l/m² can be applied in one working operation even on vertical surfaces and ceilings without any loss of material.

Airless procedure:
Equipment pressure: 50 - 60 bar

Working temperature:
Hydrophobizing impregnation is best carried out in a temperature range between +10 °C to + 25 °C. Strong heating of surfaces by sunlight can be prevented by the use of awnings. At temperatures below +10 °C, evaporation of the carrier agent and formation of the effective ingredient may be delayed.

Rain tight:
Approx. 30 minutes after application

Notes
To prevent ingredients in the product from entering the building, keep all windows, doors and other openings closed during impregnation work. After the impregnation agent has dried, ventilate living space thoroughly.

Testing the effectiveness
Water absorption on cementitious building elements can be determined before and after the hydrophobizing impregnation measures have been carried out with the Funcosil Test Plate (Art. No. 0732) or with a test tube developed by Professor Karsten (Art. No. 4928). Testing should be executed 6 weeks at the earliest after the hydrophobizing measures have been carried out and the measured data recorded.

Tools, cleaning
Lambskin roller, wide brush and airless equipment.

Airless nozzles:
No. 523; 50° spraying angle; bore 0.023 inch
No. 421; 40° spraying angle; bore 0.021 inch
Tools must be clean and dry. After use and before longer pauses, clean thoroughly with water.

Packaging, application rate, shelf-life
Packaging: 5 and 18 litre plastic containers
Application rate:
Approx. 0.2 l/m² Funcosil C40
The amount required for calculation and tender should be determined on a sufficiently large trial surface (1-2 m²). The effectiveness of the impregnation can also be tested on this surface.

Shelf-life:
At least 12 months stored cool but frost-free in unopened, original containers. Storage temperature should be 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.

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