



**Technical Data Sheet** Art. No. 0602

# Funcosil SNL

Low molecular siloxane



Solvent base







≤ +25 °C

Working

temperature

Brush/roller low pressure spraying



and cool. protected from moisture in closed containers



Shelf-life

### Range of use

Funcosil SNL is a hydrophobizing impregnation agent for porous, mineral building materials such as fair-faced brick masonry work, sand-lime brick, mineral renders, aerated concrete and light-weight concrete. It can also be used to subsequently impregnate mineral paint coatings.





# Produktkenndaten

# Characteristic data in the packaged state

500-1500 ml

11 L

Total

application

rate

Siloxane content: Carrier material: Density: Viscosity: Flashpoint: Appearance:

approx. 7 % by mass low odour, aliphatic hydrocarbons approx. 0.80 g/cm<sup>3</sup> approx. 44 sec. in a DIN 2 cup > 30 °C clear liquid

#### Characteristic data after reaction of effective ingredients

Water absorption: UV stability: Weather resistance: Long-term effect: Alkali resistance: Tack-free drying: Tendency to soil:

very little good high proved for > 10 years up to pH 14 given little

#### **Property profile**

Funcosil SNL is a reactive, oligomer siloxane solution for water repelling impregnation of mineral building materials.

Because of its low molecular structure in the packaged state, Funcosil SNL has very good penetration capacity and reacts chemically in the building material in the presence of humidity, converting into a

water repelling, UV-light stable and weather resistant active ingredient.

After application, the active ingredient is deposited as a macromolecular layer on the capillary and pore walls without noticeably impairing water vapour diffusion capacity.

Funcosil SNL reduces the absorption of water and pollutants and thus inhibits the growth of micro-

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organisms on the surface of mineral building materials. Resistance to frost and de-icing salts is improved and energy losses are reduced.

Surfaces of building materials impregnated with Funcosil SNL have much less tendency to soil.

#### 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 before impregnation is carried out. It must be ensured that water and salts that cause damage dissolved in the water cannot migrate behind the water repelling zone

The surfaces to be impregnated often have a patina of various types of soil that reduce absorption. The cleaning measures required 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. For stubborn soil, the Rotec low pressure blasting procedure or one of the Remmers cleaning products (see respective **Technical Information Sheets**) should be used. When cleaning, care should be taken not to damage the building substance any more than necessary.

Residue from prior cleaning measures (e.g. surface-active agents) could impair the water repelling effect and must be completely washed off.

#### State of the substrate:

Absorption of the impregnation agent is a prerequisite for an optimal effect. This will depend 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 damaging salts cause serious damage to buildings that cannot be prevented by hydrophobic impregnation.

#### Adjacent surfaces:

Building elements and materials 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 protected by suitable measures (covering with polyethylene sheets).

# Directions

The impregnation agent is applied under gravity in a flow coating procedure generously enough that a 30-50 cm long film of liquid runs down the building material. The nozzle should be held horizontally and led along the facade without interruption. After the impregnation agent has been absorbed, the process is repeated several times. Spraying pressure and nozzle diameter should be selected so that misting does not occur. To avoid missing areas, limited sections should be completely impregnated without interruption. A brush or roller can be used for smaller, complicated surfaces that do not allow a spray application. In this case, the required application rate can only be achieved by working with well saturated tools. Protect the freshly impregnated surface from driving rain for at least 5 hours. Strong wind and sunlight may accelerate evaporation of the carrier which has a negative influence on penetration depth.

The surface of less absorbent substrates should be washed off with V 101 Thinner half an hour to an hour after application to remove excess material which could create a gloss.

#### Working temperature:

Water repelling impregnation is preferably carried out at temperatures between +10 °C and +25 °C. Sun awnings can be used to prevent surfaces from heating too strongly.

At temperatures below 10 °C, evaporation of the carrier and formation of the active ingredient may be considerably delayed.

#### Notes

During application and the drying period, especially at low temperatures and when there is no wind, solvent vapours may enter the building. Keep all windows, doors and openings closed during impregnation work. After the impregnation agent has dried, ventilate living spaces.

#### Testing the effectiveness

Water absorption on mineral building materials before and after a hydrophobizing impregnation can be determined with the aid of the Funcosil Test Plate (Art. No. 0732) or with the Funcosil Test Tube (Art. No. 4928) developed by Professor Karsten.

Testing after the hydrophobizing measures should be carried out at the earliest after 4 weeks and the results recorded.

#### Tools, cleaning

Solvent resistant, low pressure conveying and spraying equipment as well as liquid pumps. Tools must be clean and dry. After use and before longer interruptions they should be thoroughly cleaned with V 101 Thinner or white spirit.

# Packaging, application rate, storage

#### Packaging:

1 I, 5 I, 10 I and 30 I tin cans 200 I drums and 1000 I containers

#### Application rate:

Brick masonry work, fine-pored: At least 0.8 l/m<sup>2</sup> Brick masonry work, coarse-pored: At least 1.0 l/m<sup>2</sup> Sand-lime brick, smooth: At least 0.5 l/m<sup>2</sup> Sand-lime brick, cleft, bossed: At least 0.7 l/m<sup>2</sup> Render: At least 0.5 l/m<sup>2</sup> Aerated concrete: At least 1.0 l/m<sup>2</sup> Fibrated cement: At least 0.3 l/m<sup>2</sup> Modular concrete blocks: At least 1.2 l/m<sup>2</sup>

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Natural stone, fine-pored: At least 0.6 l/m<sup>2</sup> Natural stone, coarse-pored: At least 1.5 l/m<sup>2</sup>

Impregnation agent requirements for calculation and tender should be determined on a sufficiently large trial area (1-2 m<sup>2</sup>). The effectiveness of the impregnation can also be checked on this surface.

#### Shelf-life:

At least 2 years in unopened containers. The containers should be protected from temperatures above + 30 °C and stored dry. Once containers have been opened, the contents should be used as soon as possible.

# 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. Draeger). For suitable protective gloves, see Safety Data Sheet. Wear closed work clothes.



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