

## Technical Information Sheet Article No. 0655

# Funcosil AG

Dirt, grease, water and oil repelling impregnation agent on a fluoracrylic copolymer base with an "anti-posting effect"

### Range of use

Funcosil AG is used for water, oil and soil repelling treatment of absorbent wall and floor building materials. It is especially recommended for sandstone, sand-lime brick, fair-faced and exposed aggregate concrete. It can be used in waiting rooms and counter service areas, hallways, stairwells and kitchens as well as in general on all porous building material surfaces in municipal, industrial, housing, church, school and sport facilities open to the public. It can also be used for window sills and table tops made of natural or synthetic stone as well as terracotta floors to avoid spotting. It is also useful as preventive protection against unlawful postings.

### Property profile

Funcosil AG is a clear, solvent-based impregnation for interior and exterior use. After drying, the treated surfaces are water, soil, grease and oil repelling. The surface structure and gloss of the surfaces treated are not altered. Soiling such as pencil, ball-point pen, fat and oil, etc. can be removed with normal household cleaners. Felt-tipped pens and ink are removed with organic solvents, such as spirit, white spirit or synthetic resin thinner. After removal

### Characteristic data of the product

Active ingredient base:	fluoracrylic copolymer
Active ingredient content:	5.5 % by mass
Carrier agent:	aliphatic hydrocarbons
Density:	0.8 g/cm <sup>3</sup>
Viscosity:	46 sec. in DIN 2 cup
Flash point:	approx 63° C.
Appearance:	clear
Water absorption:	very low
UV resistance:	good
Weathering resistance:	good
Long term effect:	good
Alkali resistance:	very good
Tack-free drying:	given
Tendency to soil:	very little

of spots with organic solvents, re-impregnate with Funcosil AG. Posters glued on with paste can be easily removed with water.

Funcosil AG has very good penetration capacity and reacts chemically with the building material in the presence of humidity to become a water repelling, UV-light and weathering resistant agent.

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

Building material surfaces impregnated with Funcosil AG show a much lower 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 corrected first. It must be ensured that water and destructive salts dissolved in the water cannot penetrate behind the hydrophobized zone since this could lead to frost damage, spalling and salt burst. Before any hydrophobic impregnation is carried out, the adhering crusts of soil and pollutants, as well as efflorescence, algae and

moss must be removed by a suitable cleaning method. Cleaning opens the capillaries and pores and allows the impregnation agent to be absorbed. Depending on substrate, type and degree of soiling, we recommend the use of our facade cleaners.

Chase out defective mortar joints and cracks and repair with Joint Mortar. Close expansion and connection joints with elastic joint sealing compounds.

### Substrate condition

A prerequisite for an optimal impregnation effect is the absorption of impregnation agent. This is dependent on the pore volume of the building material and moisture content. For this reason, the substrate must be as dry as possible.

Floor surfaces may not have been treated with wax based agents prior to treatment.

### Adjoining surfaces

Facade elements that should not come in contact with the impregnation agent, such as windows, varnished surfaces or surfaces to be varnished, as well as glass and plants, must be covered with (polyethylene) sheet.

### Directions

#### Wall surfaces – indoors/outdoors

The impregnation agent is to be applied by pressureless flow coating in such amounts that a 30-50 cm long film of liquid runs down the building material surface. The spray nozzle is lead continuously and horizontally, without interruption, along the wall. After the impregnation agent has been absorbed, the process is repeated several times.

Adjust spraying pressure and nozzle diameter so that misting does not occur.

To avoid missing places, limited sections should be impregnated without interruption at one time.

For smaller, complicated surfaces that do not allow a spray application, a brush or roller can also be used. With this method, insufficient application amounts can only be avoided if tools are kept well saturated.

The freshly impregnated surface should be protected from driving rain for at least 5 hours. Strong wind and sunlight can speed evaporation of the carrier agents which negatively influences penetration depth.

#### Floor surfaces – indoors

Apply Funcosil AG to the floor twice generously, wet-on-wet, using a brush. The material may foam some what when applied. To get rid of the foam bubbles and to avoid an excess of material, rub the floor surfaces down with a clean, non-fuzzing rag while in the matt-wet state.

#### Working temperature

Hydrophobizing impregnation measures can be carried out at all temperatures found in practice. However, temperatures in the range of +10° to +25°C. are preferable. At temperatures below 10°C., the evaporation of the carrier agent and active ingredient formation may be delayed.

### Testing effectiveness

Water absorption on mineral building materials before and after hydrophobizing impregnation measures can be determined with the Funcosil Test Plate (Art. No. 0732) or with a test tube developed by Prof. Karsten. With the Funcosil Test Plate, a non-destructive method of measuring water absorption, the w-value (water absorption coefficient in  $\text{kg/m}^2\text{h}^{0.5}$ ) can be easily determined directly on the object. Testing should be carried out at the earliest 4 weeks after impregnation and the measured data recorded.

### Notes

When working with Funcosil AG and while it is drying, solvent vapours may enter the building, es-

pecially at low temperatures and when there is no wind. Close all windows, doors and openings during impregnation work and after the impregnation has dried, ventilate living space.

### Tools, cleaning

All solvent resistant, low pressure conveyer and spraying equipment, liquid pumps are suitable. A brush and a lambskin roller can be used on floors. Tools must be dry and clean. After use and before longer pauses, clean thoroughly with V 101 thinner.

### Cleaning and maintenance

Soiling such as pencil, felt and coloured pens, ball point pens, grease and oil can be easily removed from treated surfaces with clear water or conventional cleaners (free of surface-active agents) or solvents (white spirit/benzene). Chewing gum and other sticky substances do not adhere well to treated surfaces and can also be removed with clean water or a conventional cleaner (free of surface-active agents).

To maintain floors treated with Funcosil AG, use warm water to which approx. 1.5 – 2.0 % Funcosil OFS has been added (one cup of Funcosil OFS to 10 l of mopping water).

### Packaging, application rate, shelf-life

#### Packaging:

1, 5 and 30 litre tin containers

#### Application rate:

Clinker:	0.1 - 0.3 l/m <sup>2</sup>
Brick:	0.2 - 0.4 l/m <sup>2</sup>
Sand-lime brick:	0.3 - 0.5 l/m <sup>2</sup>
Granite:	0.1 - 0.2 l/m <sup>2</sup>
Natural stone:	0.3 - 0.8 l/m <sup>2</sup>
Terracotta:	0.8 - 1.0 l/m <sup>2</sup>

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

**Shelf-life:**

At least 2 years stored cool but frost-free in closed, original containers.

**Safety, ecology, disposal**

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

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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