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Moisture protection made simple and efficient

Remmers Funcosil FC

Water is the root of all problems

Damp facades and the consequences

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

When moisture gets into a building material:
- The intake of pollutants increases
- Frost damage can occur
- The ideal conditions are created for algae, moss and other microorganisms to grow
- The insulation performance decreases significantly

Hydrophobising impregnations significantly reduce capillary water uptake caused by rain and splashing water in facades. Hydophobising treatment is therefore a sensible additional step and precautionary measure to take against damage.

Hydrophobising impregnation makes the treated building material water-repellent, but does not affect the open porosity – meaning that the vapour permeability is preserved too.

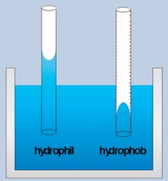
Vapour permeability and water repellency

This phenomenon can be explained using a simple experiment.

A thin glass tube is placed into a water basin, which causes the water in the glass tube to rise up.

The mechanism behind this is capillary forces. If the glass tube is now made water-repellent, the effect is reversed; water is no longer "sucked in" but is instead pushed out.

This is the result of a nano-scale layer of the hydrophobising agent, just one molecule thick, acting on the surfaces of the pores, with practically no restriction on the open cross-section needed for vapour diffusion. Air and vapour can permeate through just as before.



Funcosil FC

A permanent solution with significant benefits

The creamy consistency of Remmers Funcosil FC ensures a long contact time between the product and the surface of the building material, during which time the active ingredients are absorbed into the material. This results in high penetration depths, leading to better and longer-lasting protection against the uptake of water and pollutants.

Funcosil FC sets new standards for efficient hydrophobising of facade surfaces

- Ready to use – direct from bucket to wall
- Easy application for problem-free overhead work
- Low material consumption per m^2
- No loss due to material flow
- Desired quantity can be applied in just one step
- No need for time-consuming extra work
- High content of active agents ensures long-term effectiveness
- Excellent price–performance ratio

The creamy consistency enables precise treatment of connection points

The long contact time between the cream and the surface of the building material results in an especially high penetration depth

Funcosil FC helps you save

Moisture protection is thermal protection

Water is a good conductor of heat. This means that reducing the moisture content of a building material always leads to an improvement in its thermal insulation properties. For damp brick facades, a hydrophobising impregnation is therefore the best and most cost-effective way of reducing energy consumption and heating costs. It also has the positive side effect of reducing CO_2 emissions in existing buildings. Furthermore, applying a water-repellent coating to a single-layer brick facade usually results in displacement of the dew point, which reduces the risk of mould growth on the inside.

Advantages of hydrophobising with Funcosil FC

- Saves money – by reducing the energy demand
- Better for the environment – thanks to reduction in CO_2 emissions
- Better for health – thanks to decreased risk of mould growth

The Funcosil FC product range

Funcosil FC
Moisture protection for all substrates

Funcosil FC Plus
Moisture protection with colour-intensifying additives

Funcosil FC Historic
Moisture protection for historically significant facades

Funcosil FC pro
Moisture protection with a substrate-specific formulation

Funcosil Test Kit
Equipment for non-destructive testing of water uptake and testing the effectiveness of hydrophobising impregnations

Non-destructive testing with the Funcosil test tubes, using a method devised by Dr Karsten, provides information on how a material or building component behaves when exposed to water. The Funcosil Test Plate works in the same way, and also enables measurements to be conducted on a larger area of the facade. Both methods can be used on the construction site and in the laboratory. The tests can be used on all flat, capillary-active or hydrophobic substrates.