

HYDROPHOBIC IMPREGNATION | SILRES® BS 290 CF | SILRES® BS 280 CF

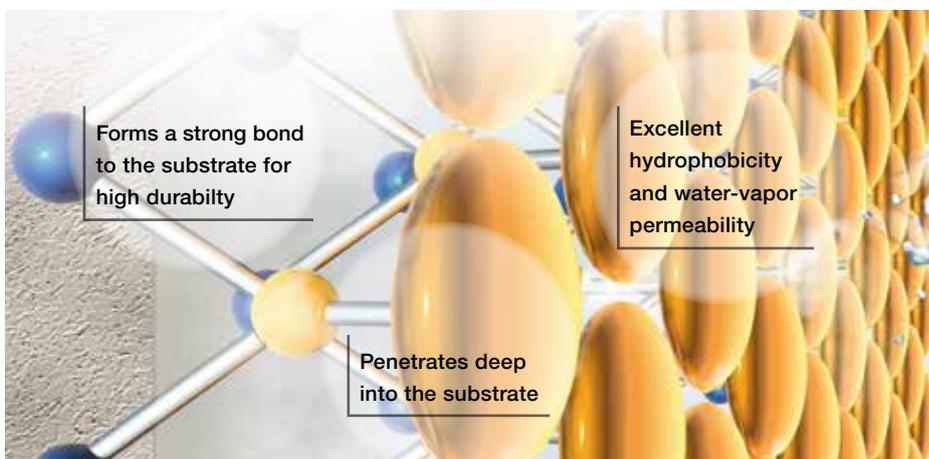
SILRES® BS 290 CF AND SILRES® BS 280 CF CATALYST-FREE CONCENTRATES FOR HYDROPHOBIC FACADE IMPREGNATION

Most structural damage in buildings is caused by moisture: water may cause efflorescence and salt damage, it promotes microbial attack by fungi, moss, lichens, etc., and it reduces the insulating capacity of a facade. But while there are many different kinds of damage, there is one simple remedy: preventive protection against moisture by means of hydrophobic impregnation.

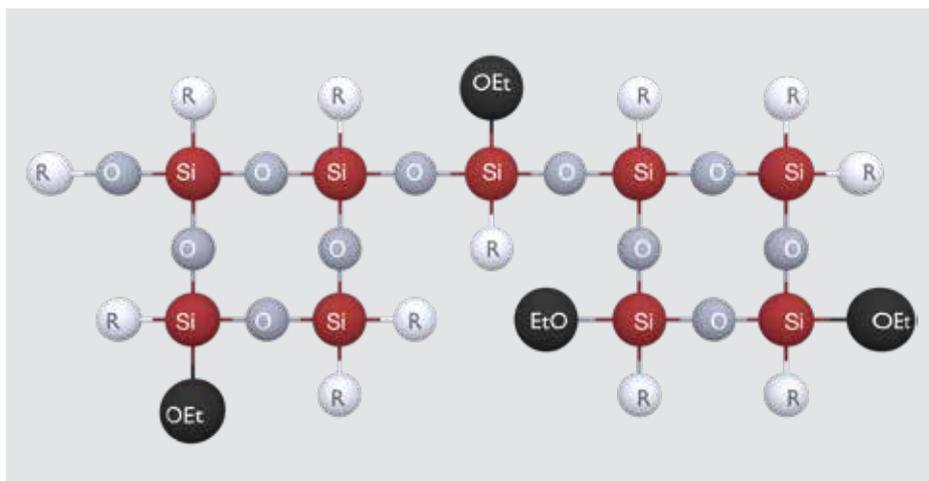
SILRES® BS 290 CF and SILRES® BS 280 CF are highly efficient, catalyst-free impregnating agents for a wide range of mineral substrates. When used for hydrophobic impregnation of building exteriors, they reduce maintenance and repair costs. Impregnation makes the surface easier to clean, enhances the value of the property, and potentially reduces heating costs. Both SILRES® BS CF grades are catalyst free, pose no health hazards and are environmentally compatible.

Highly Durable Protection

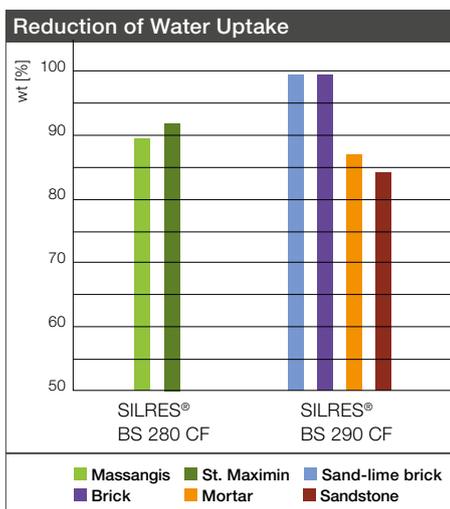
SILRES® BS 290 CF and SILRES® BS 280 CF are solvent-free silicone concentrates based on a mixture of silane and siloxane. They are dilutable with non-aqueous organic solvents such as mineral spirits. Using capillary action to penetrate the pores of the mineral building material, SILRES® BS 280 CF and SILRES® BS 290 CF react with the pore walls, siliconizing the pores and preventing water from wetting them – but do not affect water-vapor permeability.



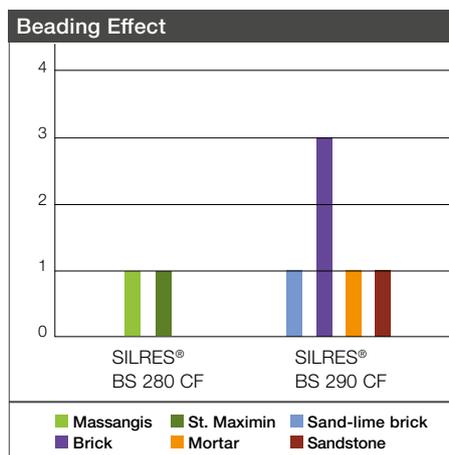
Organically modified silane and siloxane react with the silicate matrix of a mineral substrate and form a durable bond. This accounts for the extraordinary efficiency of hydrophobic impregnation.



The active ingredients in SILRES® BS products are organically modified silanes and low-molecular-weight siloxanes. These molecules carry reactive alkoxy groups. The release of alcohol forms permanent bonds with the silicate building material.

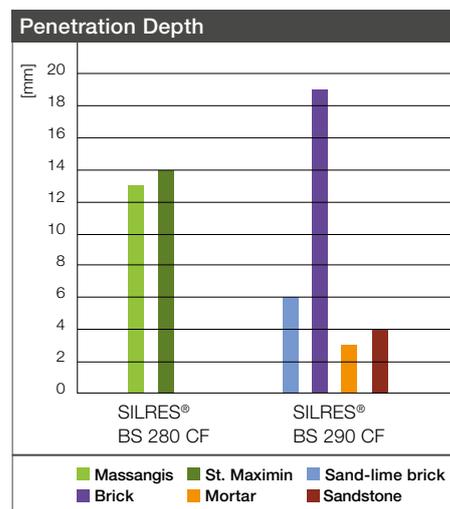


SILRES® BS 280 CF and SILRES® BS 290 CF significantly reduce water uptake on a wide range of mineral substrates.



SILRES® BS 280 CF and SILRES® BS 290 CF deliver a perfect beading effect on many substrates.

1 = perfect beading; 2 = good beading; 3 = medium beading
5 = no beading, usually untreated substrate



SILRES® BS 280 CF and SILRES® BS 290 CF penetrate the substrate effectively.

Hydrophobic Impregnation Saves Energy

Damp facades compromise thermal insulation – just 4% humidity decreases insulating capacity by 50%. Hydrophobic impregnation reduces water uptake of a wall by at least 80% for consistently high thermal insulation performance. At the same time, however, water-vapor permeability remains unaffected: moisture can escape through the wall, which helps create a healthy indoor climate.

Catalyst-Free SILRES® BS Concentrates Offer:

- Long-lasting protection
- Breathability of the substrate
- Beading effect
- Extensive penetration
- Resistance to UV light
- No surface discoloration
- No health risk
- Energy saving

Main Benefits of Catalyst-Free SILRES® BS Concentrates:

- Environmental compatibility
- No hazard labels required

Reliable Performance

SILRES® BS 280 CF and SILRES® BS 290 CF significantly reduce water uptake (by at least 80%) on a wide range of mineral substrates and natural stone, without lessening water-vapor permeability. They have an active content of 100%.

Main Advantages

- **SILRES® BS 290 CF:** our best performer, recommended for neutral to high-alkaline, silicate-based mineral substrates.
- **SILRES® BS 280 CF:** our speciality grade for lime-based substrates.

Neither SILRES® BS 290 CF or SILRES® BS 280 CF contain DOTL and, as such, do not require corresponding hazard labels. When they are diluted with non-aqueous organic solvents such as mineral spirits, the performance of both catalyst-free SILRES® CF grades is similar to that of conventional catalyzed SILRES® BS grades.

Application Areas

SILRES® BS 290 CF is suitable for a wide range of mineral substrates:

- Sand-lime brick
- Brick
- Mortar
- Sandstone

SILRES® BS 280 CF is the solution for natural stone.

Application Method

Flooding, preferably not under pressure, is the best technique for applying catalyst-free SILRES® BS concentrates. Spraying or applying with a brush or paint roller are also options. Dilute the concentrate with non-aqueous organic solvents such as mineral spirits (dilution range: 1:11 to 1:19) and apply several coats, wet on wet, until the substrate is saturated.

