



TECHNICAL DATA SHEET

SOLGEL WE - Color enhancer protective treatment for natural stone, plaster and terracotta

SOLGEL WE is a color enhancer protective treatment based on sol-gel technology. The product contains nanostructured silica gel with high concentration ideal for porous materials as natural stone, plaster and terracotta. Once applied it forms a layer of amorphous silica thin, colorless, transparent, water resistant and breathable. The wet effect is obtained maintaining the natural aspect of the surface. The functionalized component - hydrophobic- is arranged outwards and it prevents the absorption of water and substances by the surface.

APPLICATION

Surface preparation

Remove dust and deposits from the surface to be treated. Before the application the surface must be dry.

Dilution

The product is ready to use without dilution.

Directions for use

Use a brush to apply the product evenly on the surface. Allow to absorb gradually and repeat the application when the surface is still wet. In the case of materials with low level of absorption remove any excess with a cloth .

ATTENTION: Quick setting product at high concentration. Treat small areas in case of polished surfaces.

Surface coverage

The product yield is about 10 m²/L,

Activation time

30 minuti.

Stability

The treatment is completely stable after 72 hours.

Temperature conditions

Min. 5°C – max. 35°C.

CHEMICAL/PHYSICAL PROPERTIES

Composition

The product is liquid and contains nanostructured silica (40%) in alcoholic solution functionalized with silica alkoxides organically modified.

Aspect

Liquid, colorless, transparent.

Relative density

0,839 g/cm³

Drying

At room temperature.

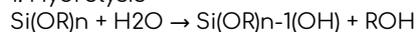
Flash point

<19 °C

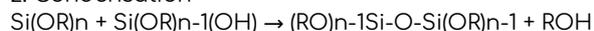
Reactions

The liquid products forms a thin layer of glass through two reactions:

1. Hydrolysis

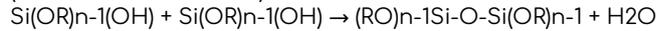


2. Condensation





(alcohol condensation)



(water condensation)

Contact angle

106 ± 10 according to UNI EN 15802, 2004.

Water absorption coefficient

w = 0,049 kg/(m²h^{0,5}) W3 class (low permeability to liquid water) according to UNI EN 1062-3, 2008.

Permeability to water vapour

V1 class (high permeability to vapour) according to UNI EN ISO 7783, 2012.

Compatibility

Chemical covalent bonds are formed between the silica layer and the substrate: Si-O-Si (in case of silicate material) or Si-O-Ca (in case of carbonates), with water release.

Resistance to detergents/maintenance

To clean the surfaces just use water and neutral detergents with soft sponges or microfiber cloths. Avoid powder detergents, alkaline substances and abrasives.

ADDITIONAL NOTES

Cleaning of the application tools

After use the tools should be washed with alcohol (2-Propanol or ethanol).

Storage

Store in a closed container, away from heat in a cool, dry place. If properly stored, the storage life is 6 months.

Safety

The product is flammable.

Advices

The product is in alcoholic solution and has a quick setting; please avoid the application with temperatures higher than 35 °C. Carry out a preliminary test on a small surface area.

Note

The data contained herein are furnished for information only and are believed to be reliable. We cannot assume responsibility for the results obtained by others over whose methods we have no control. We reserve the right to modify and improve the product and to adapt it to safety regulations as well as to modify the packages. We suggest to adapt the application of our products on the basis of the nature and of the conditions of the material to be treated by testing the product in a sample area. Our technical office is at disposal for any other explanation.