

Protectosil® 100

Protectosil® 100 is a free-flowing, colorless, frost resistant, solvent-free liquid based on a monomeric silane

Technical Data

Properties and test methods	Value	Unit	Method
Appearance	free-flowing, colorless liquid	-	-
Solvent	solvent-free	-	-
Strength	98-100	%	-
Odor	fruity	-	-
Density (20 °C)	0.93	g/cm ³	DIN 51757
Boiling point	approx. 150	°C	DIN 51751
Viscosity	approx. 0.8	mPa s	DIN 53015
Flash point	39	°C	DIN 51755

Registration

Protectosil® 100

EINECS/ELINCS (EU):	Yes
AICS (Australia):	Yes
DSL/NDL (Canada):	Yes
PICCS (Philippines):	Yes
TSCA (USA):	Yes
IECSC (P.R. China):	Yes
ENCS (Japan):	Yes
ECL (South Korea):	Yes

Protectosil® 100 is a free-flowing, colorless, frost resistant, solvent-free liquid based on a monomeric silane.

It is specifically intended for the water-repellent treatment of mineral construction materials in outdoor areas. The watervaporpermeable impregnation effectively prevents the penetration of water and dissolved damage-causing salts, such as chlorides. Protectosil® 100 seals hairline cracks of up to 0.3 mm.

Areas of Application

For waterproofing mineral substrates, in particular low-porosity substrates such as concrete (road bridges, port installations marine concrete structures, concrete facades, exposed aggregate concrete), clinker masonry and ceramic tiles as well as waterproofing under coating systems.

Safety and Handling

Before considering the use of Protectosil® products please read its Safety Data sheet (SDS) thoroughly for safety and toxicological data as well as for information on proper transportation, storage and use. The Safety Data Sheet is available after registration on our website www.protectosil.com or upon request from your local representative, customer service or from Evonik Operations GmbH, Product Safety Department, E-MAIL sds-hu@evonik.com.

Packaging and Storage

Protectosil® 100 has a shelf life of at least 12 months if stored in originally sealed containers. Containers must be kept tightly sealed and protected from moisture. Protectosil® 100 is supplied in 26,5 l and 193,5 l drums.

Properties and Use

The substrates to be treated should be air-dry and clean in order to ensure deep penetration of the active ingredient. During application the outside temperature and the temperature of the substrate should be within the range from 0 °C to 45 °C. The material should not be applied if there is strong wind or if it is raining. The material must not come into contact with water either before or during use.

Protectosil® 100 must be applied by flowcoating to the saturation point. This is achieved by allowing it to flow without pressure against the surface to be treated. All liquid delivery devices are suitable (airless sprayguns, for example). The material must not be atomized or applied with a brush.

Protectosil® 100 must remain in contact with the substrate for several seconds as a liquid film. Horizontal surfaces should have a shiny, wet appearance for 3-5 seconds. Vertical surfaces should exhibit a 30-50 cm shiny curtain of liquid. All equipment and containers must be clean and dry. After use they can be cleaned with any organic solvent (methylated spirit, petrol or thinners).

Non-absorbent substrates such as glass, wood, plastic, and metal cannot be treated with Protectosil® 100. In the worst case, product not absorbed by the substrate may react with atmospheric moisture to form a greasy, glossy silicone resin film. Substrates such as those mentioned above should therefore be covered before the application. If they nevertheless become contaminated, the resulting film can be easily removed if cleaned immediately using conventional cleaning agents, or alcohol (spirit of soap) in difficult cases.

Glass, wood and metal are not attacked by Protectosil® 100. Neither are most plastics used in construction. If in doubt, carry out a preliminary test.

Plants in the vicinity of the substrate to be treated should be protected against contact with Protectosil® 100.

Application

Mixing recommendation

Protectosil® 100 can also be used in diluted form. We recommend using a 40 % solution of the active ingredient in anhydrous (absolute) ethanol.

Pour four parts by volume Protectosil® 100 into a clean container and mix with six parts by volume anhydrous (absolute) ethanol. Stir briefly. The solution is now ready for use.

A diluted ethanol-based solution is suitable particularly for waterproofing absorbent mineral facade construction materials such as

- brickwork
- slightly absorbent clinker masonry
- exposed-aggregate concrete
- mineral plaster facades
- sand-lime brickwork
- autoclaved aerated concrete.

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