

Technical Data Sheet

Protectosil® 100 N

Silane-based water repellent for mineral building materials

PRODUCT DESCRIPTION

Protectosil® 100 N is a liquid water repellent based on a monomeric silane, specifically designed for the external waterproofing of mineral building materials, offering effective and lasting protection.

Typical Properties

Property	Unit	Value
Active Content	wt%	>98
Boiling Point, min. DIN 51751	°C	186.6
Color		colorless
Density DIN 51757 (@20 °C)	g/cm ³	0.88
Flash Point, min. DIN EN ISO 2719	°C	63.5
Viscosity DIN 53015 (@20 °C)	mPa·s	~0.95

The data represents typical values (no product specification)

TYPICAL APPLICATIONS

Undiluted:

Water repellent for mineral building materials, especially substrates with low porosity such as

- concrete
- clinker bricks
- ceramic tiles
- water repellent primer under top coats

Protectosil® 100 N may be used as a concentrate to manufacture diluted products and formulations.

Diluted:

Diluted version is suitable for treating absorbent mineral facing materials such as

- brick work
- clinker brick
- prefabricated concrete units
- exposed aggregate concrete
- mineral rendering
- sand-lime brick work

BENEFITS & ADVANTAGES

- Main advantages of Protectosil® 100 N
- excellent reduction of water uptake
- excellent resistance to chloride ion ingress
- deep penetration into dense substrates
- preservation of water vapor permeability
- no change of surface appearance
- protection of hairline cracks of up to 0.3 mm
- good adhesion of coatings and paints
- dilutable with a solvent

DOSAGE

Protectosil® 100 N may be used as a concentrate to manufacture diluted products and formulations.

Protectosil® 100 N can also be applied in a diluted formulation. We recommend using at least 40% of the product in anhydrous (absolute) ethanol.

Coverage rates depend on the concentration of Protectosil® 100 N in the formulation and the type of substrate to be treated and should be identified on a test patch first.

HANDLING & PROCESSING

Protectosil® 100 N dilution instructions

In a clean vessel, combine four parts of Protectosil® 100 N with six parts of anhydrous (absolute) ethanol. Mix briefly, and the solution is ready for use.

General instructions for use:

The substrates to be treated should be air-dry and clean in order to ensure deep penetration of the active ingredient. During the application the outside temperature and the temperature of the substrate should be within the range of 0 °C to 40 °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 N must be applied by flow coating 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.

A liquid film of Protectosil® 100 N must remain in contact with the surface to be treated for several seconds. Horizontal areas must have a light-reflecting "wet" appearance for 3 to 5 sec. Vertical surfaces should exhibit a 30 - 50 cm long, light-reflecting curtain marking the advance of the 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, for example, glass, wood, plastic and metal cannot be treated with Protectosil® 100 N. Glass, wood, and metal are not attacked by Protectosil® 100 N. Neither are most plastics used in construction. Therefore covering is normally not necessary. In order to ensure compatibility, it is recommended to carry out a test. In the worst case, product not absorbed by the substrate may react with atmospheric moisture to form a greasy, glossy silicone resin film, which can easily be removed if cleaned immediately using conventional cleaning agents or alcohol.

Plants in the vicinity of the substrate to be treated are to be protected against contact with the waterproofing agent.

Protectosil® 100 N reacts with the interfaces in pores and capillaries of the mineral surface and forms invisible, water repellent interfacial compounds. However, since it is frequently unknown whether the material has been previously treated, a test should always be performed on a small area to make sure that no undesired secondary phenomena occur.

SAFETY

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 on our website <https://silanes.evonik.com/en> or upon request from your local representative, customer service or from Evonik Operations GmbH, Product Safety Department, E-MAIL sds-hu@evonik.com.

PACKAGING

Protectosil® 100 N is supplied in 25 kg pails, 176 kg drums and 792 kg IBCs.

STORAGE

The product should be stored at temperatures between -10 °C and 40 °C.

SHELF LIFE

Protectosil® 100 N has a shelf life of at least 12 months when stored in originally sealed containers.

Registration Listings

Registry	Status
Australia (AIIC)	Yes
Canada (DSL)	Yes
China (IECSC)	Yes
EU (EINECS/ELINCS)	Yes
Japan (ENCS)	Yes
South Korea (KECL)	Yes
Philippines (PICCS)	Yes
USA (TSCA)	Yes

For further information
visit our
Customer Portal



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