

# Protectosil® 100N (US)

## Silane water repellent for mineral based building materials

### PRODUCT DESCRIPTION

**Protectosil® 100 N** is a free-flowing, colorless, solvent-free liquid water repellent based on a Isobutyltrialkoxysilane, specially intended for the external waterproofing of mineral building materials.

#### TEST DATA

Properties and test methods	Value	Unit	Method
Color			water white
Solvent			none
Active Content		%	98-100
Flash Point		oF	145.4
Density		lbs/gal	7.3
VOC(Pure)		g/L	390
Viscosity		mPa.s	0.95

#### REGISTRATION

##### Protectosil® 100N (US)

EINECS/ELINCS (EU)	Yes
AICS(Australia)	Yes
DSL/NDSL (Canada)	Yes
TSCA (USA)	Yes
ENCS (Japan)	Yes
ECL (Korea)	Yes

### INSTALLATION

#### Recommendations for use

As a water repellent for mineral building materials especially substrates with low porosity such as:

- e.g.concrete (road bridges, port facilities and all marine concretes, concrete facings, exposed aggregate concrete)
- brick
- Natural Stone(non-calcareous)

#### Product Characteristics

- solvent-free, colorless material
- very low volatility, no loss of active substance by evaporation
- 100% water vapor permeable
- no formation of a sticky silicone film
- effective on micro cracks up to 0.3 mm
- greatly reduces the uptake of water and damaging water-borne contaminants (e.g. chlorides)
- high depth of penetration
- resistant to alkali
- protects against alkali-aggregate reaction in concrete
- meets NCHRP, ASTM and AASHTO standards

#### Formulation Recommendation

**Protectosil® 100 N** can also be applied in a diluted formulation. Dilution can be done either in the manufacturing facility or in the field. There is no potlife issues after the solvent is added. We recommend using a minimum 55% concentration of the active ingredient in anhydrous (absolute) ethanol in order to meet EPA guidelines for VOC regulations. Lower concentrations of active material can be used if exempt solvents are incorporated in the formulation.

When diluting, combine the solvent and **Protectosil® 100 N** to a clean vessel. After mixing briefly the solution is ready for use. The diluted solution is suitable for treating all absorbent mineral building materials, such as, but not limited to concrete(precast and cast-in-place), and some natural stone.

## ADVANTAGES

### Directions for 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 of 20 °F to 100 °F. 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 should be applied using low-pressure (15 to 25 psi) pumping equipment with a wet fan type spray nozzle. Alternate methods include using either a power roller with a 1" nap or a brush.

On vertical surfaces, apply the **Protectosil**® 100 N in a flooding application from the bottom up, so the material runs down 6 to 8 inches below the spray pattern. Coverage rates on vertical surfaces depend on the type of substrate to be treated. Coverage rates on horizontal concrete surfaces are between 100 and 350 ft<sup>2</sup>/gal.

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-porous substrates such as glass, wood, plastic and metal cannot be treated with **Protectosil**® 100 N. Glass, wood, and metal are not attacked by **Protectosil**® 100 N, but it may leave a residue. Covering non-porous surfaces may not be necessary. To make it sure we recommend a test be conducted to confirm. 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.

**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 substrate has been previously treated, a test should always be performed on a small area to make sure that no undesired results occur.

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

**Protectosil**® 100 N is a combustible liquid and should be kept away from heat, sparks, open flame and other sources of ignition.

**Protectosil**® 100 N containers should be kept closed when not in use and should be stored at temperatures between 0°F (-18°C) and 120°F (50°C), away from rain and standing water. When working in an enclosed area, an air respirator should be used. Please refer to the material safety data sheet for more detailed information.

Technical service engineers and scientists are available to answer questions about product performance, application methods and compatibility with other building materials. You can speak to one of our engineers or scientists directly by calling our toll-free number, 1 (800) 828-0919, and selecting option 1.

## AVAILABILITY

**Protectosil**® 100 N is available in 5-gallon pails and 55-gallon drums. Shipped F.O.B. throughout the United States and Canada. Contact your local **Protectosil** representative or your regional manager for specific cost information. You can obtain their contact information on our website, [www.protectosil.com](http://www.protectosil.com), or by calling us at 1 (800) 828-0919.

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