

Protectosil® BHN PLUS

Hydrophobizing impregnation with excellent water-, oil- and stain repellent properties for concrete, pavers, bricks and natural stones.

Technical Data

Properties and test methods	Value	Unit	Method
Active Solids	>94	%	
Flash Point	>40	°C	DIN 51755
Density (20°C)	0,89	g/cm ³	DIN 51757
Viscosity	1,00	mPa·s	DIN 53015

Registration

Protectosil® BHN PLUS

DSL/NDSL (Canada):	Yes
PICCS (Philippines):	No
TSCA (USA):	Yes
IECS (P.R. China):	No
ENCS (Japan):	*
ECL (South Korea):	*
EINECS/ELINCS (EU):	Yes
AICS (Australia):	No
* = available on request	

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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 Resource Efficiency GmbH, Product Safety Department, E-MAIL sds-hu@evonik.com.

Packaging and Storage

Protectosil® BHN PLUS is supplied in 25 l PE jerry cans and in 200 l steel drums with inliner. Protectosil® BHN PLUS should not come into contact with moisture. The material should be stored at temperatures between -10 °C und 40 °C. Protectosil® BHN PLUS has a shelf life of at least 12 months when stored in originally sealed containers.

Turbidities or settling that might occur (e.g. at the bottom of a container) have no negative impact on the product performance. They can be removed by stirring.

Properties and Use

- clear, colorless to slightly cloudy, frost resistant liquid
- > 94% active content
- flash point >40 °C
- low volatility
- not miscible with water

Protectosil® BHN PLUS

- provides oil and water repellency, stain resistance and creates easy-to-clean surfaces on porous mineral building materials
- makes stains caused by common liquids (e. g. coffee, coke, oils), food products (e. g. mustard, ketchup, wine) or automotive fluids easily removable
- treated facades remain clean longer and are less susceptible to the growth of microorganisms such as mold and algae
- shows high reactivity and is alkaline resistant
- forms invisible and fully water vapour permeable impregnations
- prevents the ingress of water and water soluble pollutants
- is supplied ready to use

Application Details

Suitable substrates	Approximate consumption - Mode of application
concrete	150-250 g/m ² - Low pressure pumping, brush, roller
brick	250-350 g/m ² - Low pressure pumping, brush, roller
natural mineral stone	100-600 g/m ² - Low pressure pumping, brush, roller

Processing

Protectosil® BHN PLUS is suitable for the waterproofing of mineral substrates. The amount to be applied and the concentration to be used is highly dependant on the porosity of the substrate.

All surfaces must be thoroughly cleaned and air-dried before treatment. Acceptable surface cleaning methods include sandblasting, water blasting and chemical cleaners. During application, the outside temperature as well as the substrate temperature should range between 0 and +40 °C. Protectosil® BHN PLUS should not be applied if there is a strong wind or when raining.

Protectosil® BHN PLUS should be applied using low pressure pumping equipment with a wet fan type spray nozzle. Alternate methods include power roller with a 1" nap or by brush. Do not apply to a wet or damp substrate. On vertical surfaces apply Protectosil® BHN PLUS in a flooding application, with the material running down 6 to 8 inches (15-20 cm) below the spray pattern. On horizontal surfaces the liquid material should pond on the surface for at least 5 seconds before being absorbed. All equipment and containers must be clean and dry. After use, they can be cleaned with any organic solvent (methylated spirit or petrol). The material must not be atomized. In order to reach the recommended consumption rates it may be necessary to apply the material using multiple applications steps. It is recommended to let the surface dry in between application steps.

Non-absorbent substrates such as window frames, window sills, plastic fittings, window glass, etc., should be covered before application. Surfaces which accidentally come into contact with Protectosil® BHN PLUS can be cleaned with alcohol (spirit) or aqueous soap solution. Cleaning should be carried out as quickly as possible (within a few hours), otherwise formation of a silicone resin film can make cleaning more difficult. Silicone resin films are best removed using ethanol (or spirit). Plant life should be protected from overspray. In addition Protectosil® BHN PLUS should not come into contact with asphalt as it may dissolve.

Protectosil® BHN PLUS reacts with the interfaces in pores and capillaries of the mineral surface and forms invisible, water-repellent interfacial compounds. To determine the exact amount to be applied and to check weather previous or following treatments are compatible with the Protectosil® BHN PLUS treatment it is recommended to do a small test patch first.

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