Technical Data Sheet

Protectosil® 100 NK

High quality water repellent formulation for mineral substrates

PRODUCT DESCRIPTION

Protectosil® 100 NK serves as an effective water repellent providing an excellent water beading effect

Typical Properties

Property	Unit	Value
Appearance		colorless to yellow liquid
Active Content	%	~100
Density DIN 51757 (@20 °C)	g/cm³	~0.88
Flash Point DIN EN ISO 2719	°C	>57
Viscosity DIN 53015 (@20 °C)	mPa·s	~0.95

The data represents typical values (no product specification)

TYPICAL APPLICATIONS

Suitable porous, mineral substrates:

- Concrete (fresh or carbonated)
- Clinker masonry
- Ceramic tiles
- Sandy limestone
- Natural stone
- Cement render

BENEFITS & ADVANTAGES

Protectosil® 100 NK provides:

- An excellent water beading effect
- Excellent reduction of water uptake
- Resistance to chloride ion ingress
- High resistance to alkaline environments
- 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
- Quick drying time after application (~1 hour)

DOSAGE

Protectosil® 100 NK can be used undiluted and diluted. The amount to be applied depends to a large extent on how absorbent the substrate is.

Protectosil® 100 NK can be diluted with suitable solvents such as

- white spirit
- ethanol (water free, denatured with petroleum-hydrocarbons)
- aliphatic hydrocarbon solvents (pentane, hexane, heptane, etc.)

Recommended dilution rates range from 1:1 - 1:9.

Coverage rates (especially on vertical surfaces) depend on the type of substrate to be treated and should be identified on a test patch first.

HANDLING & PROCESSING

The substrates to be impregnated 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 in the range from 0 to 45°C. The material should not be applied if there is a strong wind or if it is raining. Protectosil® 100 NK must not come into contact with water either before or during use. Protectosil® 100 NK must be applied by flow coating to saturation point. This is achieved by allowing it to flow without pressure against the surface to be treated. All delivery devices for liquids are suitable (airless spray guns, for example). The material must not be atomized or applied with a brush. Protectosil® 100 NK must remain in contact with the substrate for several seconds as a liquid film. On vertical surfaces Protectosil® 100 NK is applied in a flooding application from the top down, so the material runs down 30-50 cm in a shiny curtain below the spray pattern. On horizontal surfaces a liquid film of Protectosil® 100 NK must remain in contact with the substrate for several seconds. The surface should have a shiny, wet appearance for at least 3-5 seconds.

All equipment and containers must be clean and dry before use. After use, they can be cleaned with organic solvents such as methylated spirit, petrol or thinners. Non-absorbent

substrates - including window frames, window sills, plastic fittings, window glass - should be covered prior to application to avoid accidental contact. Surfaces accidentally exposed to Protectosil® 100 NK can be cleaned with alcohol (e.g. spirit) or aqueous soap solution (the compatibility with the surface in question should be checked in advance). Cleaning should be performed promptly, ideally within a few hours, as the formation of a silicone resin film can make removal more difficult. If such films have already formed, they can be removed most effectively using ethanol (spirit). Plants in the vicinity of the substrate to be treated should be protected against contact with Protectosil® 100 NK. Protectosil® 100 NK reacts with the interfaces in pores and capillaries of mineral surfaces, forming invisible, water-repellent interfacial compounds. However, since the material composition and potential pretreatment of the substrate are often unknown, it is strongly recommended to test the product on a small area first to ensure no undesired effects 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 NK is supplied in 25 l pails, 205 l drums and 980 l IBC's.

STORAGE

Protectosil® 100 NK should be stored at temperatures between -10 °C and 40 °C.

SHELF LIFE

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

Product may turn yellow over time. This is no sign of decomposition but a characteristic of the formulation. Performance is not affected.

Registration Listings

Registry	Status
Australia (AIIC)	Yes
Canada (DSL)	No
China (IECSC)	Yes
EU (EINECS/ELINCS)	Yes
Japan (ENCS)	Yes
South Korea (KECL)	No
Philippines (PICCS)	Yes
USA (TSCA)	Yes

For further information visit our Customer Portal

World of Protectosil®

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