

Technical Data Sheet

Protectosil® 60 SK

High performance water-repellent with water beading effect for masonry.

PRODUCT DESCRIPTION

Protectosil® 60 SK is a free-flowing frost resistant liquid based on a silane/siloxane mixture meant for the water repellent treatment of mineral building materials.

Typical Properties

Property	Unit	Value
Appearance		yellowish, clear to slightly turbid liquid
Active Content	wt%	~100
Density DIN 51757 (@20 °C)	g/cm ³	1.038
Flash Point DIN EN ISO 2719	°C	>40
Viscosity DIN 53015 (@20 °C)	mPa · s	~1.0

The data represents typical values (no product specification)

TYPICAL APPLICATIONS

Protectosil® 60 SK is suitable for waterproofing mineral building materials, such as concrete, sand limestone, clinker, masonry and mineral based natural stone.

An excellent beading effect develops a short time after application.

BENEFITS & ADVANTAGES

Protectosil® 60 SK:

- is suited for the water repellent impregnation of absorbent, mineral substrates
- provides a very good beading effect
- shows very high reactivity and resistance against alkali
- gives invisible and water vapor permeable protection
- reduces significantly the uptake of water
- reduces the uptake of water-soluble pollutants (e.g. chlorides)
- seals hairline cracks up to 0.3 mm

DOSAGE

Protectosil® 60 SK can be applied at full-strength or after dilution with suitable solvents. We recommend a minimum application concentration of 10% by weight (which corresponds to 1 part Protectosil® 60 SK and 9 parts solvent). It is not recommended to use the product at full-strength on concrete. Here it is of advantage to use dilution rates ranging from 1:3 up to 1:9.

The amount to be applied depends on how porous the substrate is.

When using a dilution rate of 1:9 in ethanol, coverage rates range from

- 0.2 - 0.7 g/m² for mineral plaster facades
- 0.2 - 0.8 g/m² for sand limestone
- 0.3 - 1.0 g/m² for brick and
- 0.17 - 0.6 g/m² for concrete

A test patch must be applied to determine the correct coverage rate. In order to reach these consumption rates, it may be necessary to apply the material using multiple applications steps. It is recommended to let the surface dry between every application step.

The above-mentioned consumption rates are required in order to achieve reduction of water uptake rates of >90%. If a reduction of water uptake lower than that is required a higher dilution rate (e.g. 1:14 in ethanol) or a smaller consumption rate is possible to use. This should be evaluated in previous tests.

HANDLING & PROCESSING

Untreated substrates should be air-dry and clean in order to ensure deep penetration of the active ingredient. During application the outside temperature as well as the substrate's temperature should be between 5 and 40 °C. The material should not be applied during strong wind or if it is raining.

The material must not come into contact with water either before or during use. All surfaces must be cleaned to remove all traces of dirt, dust, efflorescence, mold, salt, grease, oil, asphalt, laitance, curing compounds, paint, coatings and other foreign materials. Acceptable surface cleaning methods include sandblasting, water blasting and chemical cleaners. Protectosil® 60 SK should not be applied to a painted surface without silicate content. The mineral groups of the substrate

must be accessible for the product to create a strong bonding, which is essential for good long-term performance. Protectosil® 60 SK should be applied using low pressure pumping equipment with a wet fan type spray nozzle. Do not apply to a wet or damp substrate. On vertical surfaces Protectosil® 60 SK should be applied by flooding, so the material runs down 15 - 20 cm below the spray pattern. On horizontal surfaces the liquid material should remain on the surface for at least 5 seconds before being absorbed. A test patch should be applied to the substrate to verify coverage rate and application conditions. Protect glass, metal, plastic and other non-porous substrates from over spray. Protectosil® 60 SK will not etch glass but will leave a residue on non-porous surfaces. The material must not be atomized.

Suitable solvents for the dilution are

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

All equipment and containers must be clean and dry. After use they can be cleaned with any organic solvent (methylated spirit or petrol). 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® 60 SK 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 white spirit. Plant life should be protected from overspray.

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® 60 SK is supplied in 25 l PE canisters and 200 l plastic lined steel drums and 1.000 l IBCs.

STORAGE

The product should be stored at temperatures between -10 and 40 °C (best between 0 °C and 30 °C).

SHELF LIFE

Protectosil® 60 SK has a shelf life of at least 12 months if stored in originally sealed containers.

Registration Listings

Registry	Status
Australia (AICIS)	No
Canada (DSL)	Information upon request
China (IECSC)	Information upon request
EU (REACH)	Yes
Japan (ENCS)	Yes
South Korea (KECL)	Yes
Philippines (PICCS)	No
United States of America (TSCA)	Yes

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Customer Portal



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Evonik Operations GmbH

Silanes
Rodenbacher Chaussee 4
63457 Hanau-Wolfgang
Germany
[evonik.click/silanes](https://www.evonik.click/silanes)