

Technical Data Sheet

Protectosil® 009

Hydrophobic impregnation for concrete and other porous mineral substrates, featuring an excellent beading effect.

PRODUCT DESCRIPTION

Protectosil® 009 is suitable for the waterproofing of mineral substrates, in particular low-porosity substrates such as concrete

Typical Properties

Property	Unit	Value
Appearance		colorless to slightly amber liquid
Active Content	%	~100
Density DIN 51757 (@20 °C)	g/cm ³	~0.94
Flash Point EN 22719	°C	>63
Viscosity DIN 53015	mPa·s	~20

The data represents typical values (no product specification)

TYPICAL APPLICATIONS

Protectosil® 009 is an allrounder system that is applicable for a broad range of mineral substrates that range from dense to porous.

Suitable substrates:

- Concrete
- clay bricks
- clay roof tiles
- clinker masonry
- sand limestone
- others

BENEFITS & ADVANTAGES

Main advantages of Protectosil® 009

- 100% active ingredient
- solvent free
- Excellent reduction of water uptake
- Excellent 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
- Enhanced durability
- Applicable on new, old and carbonated concrete
- May be diluted with a solvent such as e.g. ethanol or white spirit

DOSAGE

A liquid film of Protectosil® 009 must remain in contact with the substrate for several seconds. Horizontal surfaces should have a shiny, wet appearance for 3-5 seconds. Vertical surfaces should exhibit a 30-50 cm shiny curtain of liquid.

Protectosil® 009 may be diluted with a solvent. The amount to be applied and the concentration to be used depends to a large extent on how absorbent the substrate is.

Suitable substrates	Approx. consumption	Dilution rate*	Mode of application
Fiber cement boards	min. 100 g/m ²	-	Airless spraying or Roller
Concrete	min. 200 g/m ²	max. 1:1	Airless spraying
Sand limestone	min. 300 g/m ²	max. 1:3	Airless spraying
Clinker masonry	min. 400 g/m ²	max. 1:4	Airless spraying

*dilution with appropriate solvent e.g. Ethanol

HANDLING & PROCESSING

A curing time of 28 days should be allowed for fresh concrete before Protectosil® 009 is applied. Protectosil® 009 can also be used on aged concrete.

All surfaces should be air-dry and clean in order to ensure deep penetration of the active ingredient. Cleaning is required to remove dirt, dust, efflorescence, mold, salt, grease, oil, asphalt, laitance, curing compounds, paint, coatings as well as other foreign materials. Acceptable surface cleaning methods include shotblasting, sand blasting, water blasting and using chemical cleaners.

During application the outside temperature and the temperature of the substrate should be within the range of 0 °C to 40 °C. Protectosil® 009 should not come into contact with water before or during application and should not be applied if there is strong wind or if it is raining. Allow

a minimum of 24 h of drying after a heavy rainfall before applying the product. After application the treated surface should be protected from rain for at least 24 h.

Protectosil® 009 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 delivery devices for liquids are suitable (e.g. airless spray-guns). The material must not be atomized or applied with a brush.

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All equipment and containers must be clean and dry. After use they can be cleaned with an organic solvent (e.g. methylated spirit, petrol or thinners).

Protectosil® 009 reacts with the interfaces in pores and capillaries of the mineral surface and forms invisible, water-repellent interfacial compounds. It is always recommended to do a test patch first to determine the exact amount to be applied, to check for any unwanted side effects, and to check whether previous or following treatments are compatible with the treatment.

Protectosil® 009 should not come into contact with asphalt as it would dissolve. Non-absorbent substrates such as, for example, glass, wood, plastic and metal cannot be treated with Protectosil® 009 and should be covered during application. 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 be removed if cleaned immediately using conventional cleaning agents, or alcohol (check for compatibility of the solvent with the surface). Plants in the vicinity of the substrate to be treated should be protected against contact with Protectosil® 009.

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® 009 is regularly supplied in 1000 l IBCs. Pails (25 l) and drums (200 l) are available for order with an extended lead time

STORAGE

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

SHELF LIFE

The product has a shelf life of at least 12 months if stored in originally sealed containers.

Disclaimer

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