BUILDING TRUST

PRODUCT DATA SHEET

Sikagard®-320

(formerly MProtect 320)

Ready to use, protective and decorative anti-carbonation coating for concrete and masonry

DESCRIPTION

Sikagard®-320 is a ready to use, smooth, water-based acrylic coating that after curing forms a protective and dedcorative anti-carbonation and weather-proof finish. As a tintable preoduct it is available in many different colour shades.

USES

- For indoor and outdoor use.
- For vertial and overhead applications.
- CE-certified as surface protection system according to EN 1504-2.
- As decorative and protective coating for both concrete and render façades.
- To protect engineering structures and façades against water and gases like carbon dioxide, sulphur oxides, nitrogen oxides as well as chlorides.

Note: in case crack-bridging properties are required, Sikagard-330 EL has to be used.

FEATURES

- Easy to apply by roller, brush or spray
- Can be used inside and outside, on walls and soffits
- Smooth, decorative finish
- Excellent resistance against CO_2 diffusion
- Water vapour permeable
- Excellent resistance against alkali and atmospheric pollution
- Mildew resistant
- High adhesion to mineral substrates
- Easy maintenance - cleaning by steam or even high water pressure
- Environmental-friendly, water-based formulation

PRODUCT INFORMATION

Packaging	Sikagard®-320 is available in plastic pails.
Colour	For standard colours as well as all available colours please contact your local Sika representative.
Shelf life	Please refer to the shelf life information on the packaging.
Storage conditions	Store in cool and dry warehouse conditions, protrected from frost, max. 2 pails high and clear of the ground. No permannet storage over +30 °C.
Density	Approx. 1.4 to 1.5 kg/l
Solid content by mass	approx. 61 to 63 %

TECHNICAL INFORMATION

Tensile adhesion strength	concrete after 28 days	≥ 2,0 N/mm²	(EN 1542)
Freeze thaw de-icing salt resistance	Adhesion to concrete after freeze-thaw (50 cycles with salt)	≥ 2,0 N/mm²	(EN 13687-1)
Resistance to weathering	Adhesion to concrete after freezethaw (50 cycles with salt)	≥ 2,0 N/mm²	(EN 1542)
	Adhesion to Concrete after freezethaw (50 cycles with salt)		
Behaviour after artificial weathering	no blistering, no cracking, no flaking		(EN 1062-11)
Permeability to water vapour	S_D < 5 m (= Class I)		
Capillary absorption	≤ 0.02 kg·m^{-2}·h$^{-0,5}$		(EN 1062-3)
Permeability to carbon dioxide	S_D> 90 m		(EN 1062-6)

APPLICATION INFORMATION

Consumption	Approox. 0.3 to 0.5 l/m² (0.4 to 0.6 kg/m²) in two coats. The consumption strongly depends on the porosity and the profile of the substrate.
Ambient air temperature	+8 °C to +35 °C
Relative air humidity	≤ 80 % (during hardening)
Substrate temperature	+8 °C to +35 °C
Waiting time to overcoating	4 to 8 hours (at +20 °C, mainly depending on relative humidity)

BASIS OF PRODUCT DATA

All technical data stated in this Product Data Sheet are based on laboratory tests. Actual measured data may vary due to circumstances beyond our control.

IMPORTANT CONSIDERATIONS

- Do not apply at temperature below +8 °C and over +35 °C.
- Exposure to rain during the drying period may cause leaching.
- Sikagard®-320 can also be applied to substrates prepared with Sikagard H 303 or H 1100.

ECOLOGY, HEALTH AND SAFETY

For information and advice on the safe handling, storage and disposal of chemical products, users shall refer to the most recent Safety Data Sheet (SDS) containing physical, ecological, toxicological and other safety-related data.

APPLICATION INSTRUCTIONS

SUBSTRATE PREPARATION

The substrate of concrete (min. C16/20) and mineral repair mortars or plasters of class C II/III (EN 998-1) must be sound, able to bear weight, dry, clean, free from cement sludges, free particles, and bond-inhibiting residues (for example, oil, fats, paraffin, stripping agents, organic additives, coats, fungi attacks, moss, and algae) and crumbly spots.
It is absolutely necessary to treat eventual spores with a fungicide.
Note: Before applying Sikagard®-320 on existing, well bonding coatings, it is recommended to determine a diagnosis by making adhesive tests in advance.

MIXING

Sikagard®-320 is a ready to use product. However, in order to obtain a uniform mixture, stir the product before use.

APPLICATION

Substrate and surrounding temperature should be between +8 °C and +35 °C. In order to avoid condensation, the surface temperature during application should be 3 °C higher than the dew point.
Do not apply Sikagard®-320 when the ambient temperature or the substrate temperature is below +8 °C and will drop below +5 °C within 24 hours.
Always apply Sikagard®-320 in two layers. Sikagard®-320 can be diluted with 5 % water for the first layer and applied by flat brush-pencil, brush, roller or spray evenly on prepared substrate. The second (and if required third) layer is applied undiluted after curing of the first layer. Airless spraying: Dilute Sikagard®-320 with max. 5 % water, spraying pressure (150–180 bar), nozzle diameter (0.53–0.68 mm). It must be tested beforehand if the equipment is suitable for spray application. Wear a particle filter mask P2.

CURING TREATMENT

Protect from rain for at least 8 hours (at +20 °C) respectively 24 hours (at +10 °C).

CLEANING OF EQUIPMENT

Tools can be cleaned with water while still wet. Once the material has cured, it can be removed only mechanically.

LOCAL RESTRICTIONS

Please note that as a result of specific local regulations the declared data for this product may vary from country to country. Please consult the local Product Data Sheet for the exact product data.

LEGAL NOTES

Any information or suggestions for use concerning Sika's products, which we either in writing or orally have given buyers or end-users of the product, have been given in good faith based on our own experiences and based on approved praxis and the technological and scientific knowledge on the time of giving such suggestions and information, which are given without any type of guarantees, and which do not lead to any further responsibility from Sika Danmark A/S, besides what is stated in the sales agreement in question. The buyer or end-user should themselves investigate or otherwise make sure, that our products are suitable for the use in question and further make sure that the products are kept and used correct and in agreement with the published rules and considering the actual conditions in order to avoid damages or less satisfactory results. Any order is accepted and any deliverance is affected according to the general terms of sales and delivery from Sika Danmark A/S, which are considered known and accepted, and which could be handed out when asked for. Our catalogues are not up-dated automatically. The present product data sheet is only for use in Denmark. Values stated in the present product data sheet should be seen as recommended, unless stated otherwise.

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