BUILDING TRUST

PRODUCT DATA SHEET

Sikagard®-320 EPS

Chemical Resistant Epoxy Polysulphide Coating

DESCRIPTION

Sikagard®-320 EPS is a two-part, solvent free, epoxy polysulphide based coating. Specially designed to protect concrete substrate against aggressive chemicals. It is highly abrasion resistant waterproofing lining system. Sikagard®-320 EPS can be used for lining of non potable water structures like tanks and pipes. Suitable for use in hot and tropical climatic conditions

USES

- Abrasion resistant protective coating in industrial and manufacturing facilities
- Tanks, non exposed pit lining in sewage and waste water treatment plants
- Lining of non potable water structures, piping, and pumping stations
- Horizontal and vertical applications

CHARACTERISTICS / ADVANTAGES

- Good chemical resistance
- Abrasion resistance
- Waterproof and protect concrete
- No primer required
- Easy to apply by brush or roller
- Non sagging

PRODUCT INFORMATION

Composition	Epoxy polysulphide
Packaging	25 kg set
Shelf life	9 months from date of production if stored in undamaged and unopened, original sealed packaging.
Storage conditions	Between +5 °C and +30 °C
Colour	Grey
Density	Component A + B: ~1.4 kg/l (+25 °C)
Solid content by mass	~100%

TECHNICAL INFORMATION

Shore A hardness	~95	
Shore D Hardness	≥60 (28 days)	(ASTM D2240)

Abrasion resistance	~12 mg (CS 10 / 1000 g / 500 cycles)		(ASTM D 4060)
Tensile adhesion strength	≥ 1.5 N/mm² (concrete failure)		(ASTM D 4541)
Service temperature	+10 °C min. / +50 °C max.		
Watertightness	Water Penetration under Pressure	No penetration after 72h at 5.0 bar	(DIN 1048-5)
Chemical resistance	The fully cured coating is resistant against various chemicals. For further information please consult Sika Technical Department.		

SYSTEM INFORMATION

System structure	2 coats of Sikagard®-320 EPS, each applied at maximum 250 µm (microns) thickness

APPLICATION INFORMATION

Mixing ratio	4 : 1 (A : B by weight)
Consumption	~350 g/m² for 250 µm (microns) DFT This figure is theoretical and does not account for any additional material required due to surface porosity, surface profile, absorption, variations in level and wastage etc.
Layer thickness	2 coats of Sikagard®-320 EPS, each applied at maximum 250 µm (microns) thickness
Ambient air temperature	+10 °C min. / +40 °C max.
Relative air humidity	80 % r.h. max. Beware of condensation!
Dew point	The substrate must be at least 3 °C above dew point to reduce the risk of condensation or blooming on the coating. Note: Low temperatures and high humidity conditions increase the probability of blooming.
Substrate temperature	+10 °C min. / +40 °C max.
Substrate moisture content	Please note that the moisture content must be ≤4 % pbw when using the Tramex meter or Oven-dry-method. No rising moisture according to ASTM (Polyethylene-sheet).
Pot Life	~30 Minutes (25 °C)
Waiting time to overcoating	Waiting time between coats is 24 hours.
Applied product ready for use	After ~7 days (25 °C)

BASIS OF PRODUCT DATA

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

IMPORTANT CONSIDERATIONS

- Do not apply Sikagard®-320 EPS in unventilated rooms / areas.
- Do not apply Sikagard®-320 EPS on substrates with rising moisture without an application of SikaGard® 720 EpoCem® as a temporary moisture barrier.
- Freshly applied Sikagard®-320 EPS should be protected from damp, condensation and water for at least 24 hours.
- For external applications, apply on falling temperatures.
- If applied during high temperatures “pin holing” may occur from rising air.
- Construction joints need to be assessed and may require additional waterproofing measures.
- Cracks need to be assessed and properly repaired.
- The incorrect assessment and treatment of cracks may lead to a reduced service life and reflective cracking.
- UV light exposure may lead to yellowing.

ECOLOGY, HEALTH AND SAFETY

User must read the most recent corresponding Safety Data Sheets (SDS) before using any products. The SDS provides information and advice on the safe handling, storage and disposal of chemical products and contains physical, ecological, toxicological and other safety-related data.

APPLICATION INSTRUCTIONS

SUBSTRATE QUALITY

- The concrete substrate must be sound and of sufficient compressive strength (minimum 25 N/mm²) with a minimum pull off strength of 1.5 N/mm².
- The substrate must be clean, dry and free of all contaminants such as dirt, oil, grease, coatings and surface treatments, etc..

SUBSTRATE PREPARATION

- Concrete substrates must be prepared mechanically using abrasive blast cleaning, grinding or scarifying equipment to remove cement laitance and achieve an open textured surface.
- Weak concrete must be removed and surface defects such as blowholes and voids must be fully exposed.
- All dust, loose and friable material must be completely removed from all surfaces before application of the product, preferably by brush or vacuum.
- Repairs to the substrate, filling of blowholes/voids and surface levelling must be carried out using appropriate products from the Sikafloor®, Sikadur® and Sikagard® range of materials.
- Depending on conrete quality may apply scratch coat first to avoid outgassing and related "pin holes". It can be done with Sikafloor®-161 mixed with approximately 3 % of Extender T or by Sikadur® PF epoxy putty, consult related product data sheets
- Steel surfaces must be sandblasted (SA 2 ½).

MIXING

Prior to mixing, stir part A mechanically. When all of part B has been added to part A, mix continuously for 2 minutes until a uniform mix has been achieved.
To ensure thorough mixing pour materials into another container and mix again to achieve a consistent mix. Over mixing must be avoided to minimise air entrainment.
Sikagard®-320 EPS must be mechanically mixed using an electric power stirrer (300 - 400 rpm) or other suitable equipment.

CLEANING OF EQUIPMENT

Clean all tools and application equipment with solvent immediately after use. Hardened / cured material can only be mechanically removed.

LOCAL RESTRICTIONS

Note that as a result of specific local regulations the declared data and recommended uses for this product may vary from country to country. Consult the local Product Data Sheet for exact product data and uses.

LEGAL NOTES

The information, and, in particular, the recommendations relating to the application and end-use of Sika products, are given in good faith based on Sika's current knowledge and experience of the products when properly stored, handled and applied under normal conditions in accordance with Sika's recommendations. In practice, the differences in materials, substrates and actual site conditions are such that no warranty in respect of merchantability or of fitness for a particular purpose, nor any liability arising out of any legal relationship whatsoever, can be inferred either from this information, or from any written recommendations, or from any other advice offered. The user of the product must test the product's suitability for the intended application and purpose. Sika reserves the right to change the properties of its products. The proprietary rights of third parties must be observed. All orders are accepted subject to our current terms of sale and delivery. Users must always refer to the most recent issue of the local Product Data Sheet for the product concerned, copies of which will be supplied on request.

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