BUILDING TRUST

PRODUCT DATA SHEET

Sikagard®-180 SA

High-build, solvent-free epoxy coating system

DESCRIPTION

Sikagard®-180 SA is a solvent-free, high build epoxy resin coating specifically developed to protect concrete surfaces. Supplied as a two-component system consisting of a pigmented base and hardener, it requires only on-site mixing to produce an easily applied, impervious and chemically resistant finish.

USES

- Internal protection of concrete tanks (non-potable water) and other liquid containment areas in industrial environments.
- Protective and decorative coating in laboratories, MEP and BOH areas.

FEATURES

- Solvent-free, high-build application
- Good chemical resistance
- Low permeability
- Waterproof and protective
- Excellent adhesion to concrete substrates
- High mechanical strength
- Durable in industrial environments
- Does not support bacterial growth
- Hygienic finish
- High gloss surface appearance
- Easily applied by brush or roller

PRODUCT INFORMATION

Composition	Epoxy-resin	
Packaging	Component A Component B Component A+B	23,534 kg 3.466 kg 27 kg
Colour	Grey shades (mixed A + B), further colours upon request	
Shelf life	12 months from date of production	
Storage conditions	Store in unopened, undamaged and sealed original packaging in dry conditions at temperatures between +5 °C and +30 °C. Protect from direct sunlight, heat and moisture.	
Density	~ 1.5 kg/l (mixed, at +25 °C)	
Solid content	~ 100%	

TECHNICAL INFORMATION

Tensile adhesion strength	≥ 1.5 N/mm² (concrete failure)	(ASTM D7234)
Chemical resistance	For chemical resistance data please contact Sika Technical Department	

APPLICATION INFORMATION

Mixing ratio	Supplied in pre-batched kits consisting of Component A (base) and Component B (hardener) in the correct mixing ratio	
Consumption	Sikagard®-180 SA must be applied in two layers at an approximate consumption of 0.3 - 0.4 kg/m² per layer. A total dry film thickness (DFT) of minimum 400 microns is required to ensure stated performance of Sikagard®-180 SA. The consumption rates are theoretical and do not include for any additional material required due to surface porosity, surface profile, variations in level and wastage etc.	
Yield	One full 27 kg kit (Component A + Component B) yields ~ 18 L	
Material temperature	+10 °C to +30 °C	
Ambient air temperature	+10 °C to +35 °C	
Relative air humidity	< 80 %	
Dew point	Apply Sikagard®-180 SA at least 3 °C above the dew point	
Substrate temperature	+10 °C to +30 °C	
Substrate moisture content	< 4 %	
Pot Life	~ 40 minutes (at +23 °C)	
Waiting time to overcoating	Min Max	8 hours (at + 20 °C) 36 hours (at + 20 °C)

SYSTEM INFORMATION

Dry film thickness	Minimum 400 microns in two coats Additional coats and/or embedment of Sikagard®-C glass mat can be applied to further enhance the protective performance of the system. For further information and guidance, contact Sika Technical Services.

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

IMPORTANT: Sikagard®-180 SA is for professional use only!

- Do not apply Sikagard®-180 SA on substrates with rising moisture.
- Apply on falling temperatures. If applied during rising temperatures “pin holing” may occur from rising air.
- Wait for the appropriate ambient and substrate temperature.
- Applications should not be made in very hot, rainy, or windy weather.
- In cold or hot weather, condition the packages of Sikagard®-180 SA in a temperature range of +20 °C to +25 °C to optimize workability. The working and reaction time of epoxy resin-based systems depend on environmental conditions such as ambient temperature and relative humidity. Low temperatures slow down the chemical reaction, prolonging working and coating times. Conversely, high temperatures accelerate the reaction. Ensure that the ambient and substrate temperatures do not fall below the minimum allowed value for proper curing.
- When applying to exterior surfaces, protect from sun, wind, frost, or rain during the initial 24 hours.
- Sikagard®-180 SA has limited UV resistance. Apply a UV-stable topcoat where required. For product selection and guidance, contact Sika Technical Services.
- Sikagard®-180 SA must be allowed to fully cure for a minimum of 7 days before being placed into immersion service.
- For water tanks where movement is expected, consider using crack-bridging Sika solutions.
- For spray application, contact Sika Technical Services for guidance.

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

SURFACE PREPARATION

The concrete substrate must be sound and of sufficient compressive strength with a minimum pull-off strength of 1.5 MPa. The substrate must be clean, dry, and free of all contaminants such as dirt, oil, grease,

coatings, and surface treatments, etc. Concrete substrates must be prepared mechanically using abrasive blast cleaning 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. Repairs to the substrate, filling of blowholes / voids and surface levelling must be carried out using appropriate products from the Sikadur® and Sikagard® range of materials.
All dust, loose, and friable material must be completely removed from the surface before application of the product.

SUBSTRATE QUALITY / PRE-TREATMENT

Sikagard®-180 SA is self-priming and generally does not require a separate primer when applied on sound, properly prepared substrates.
For highly porous or absorbent substrates, the application of a suitable primer such as SikaEmaco® P 102 is recommended at a coverage rate of approximately 0.15-0.25 kg/m² per coat. Additional coats may be required depending on substrate porosity.
Apply the primer uniformly and avoid over-application or ponding. Ensure the primer is fully absorbed into the substrate and forms a continuous film without leaving glossy or pooled areas.

MIXING

Sikagard®-180 SA is supplied in kits with the two components in the correct mixing ratio. The material temperature should preferably be between +15 °C and +25 °C prior to mixing. Add Component B completely into Component A, ensuring no material remains in the container. Scrape the sides of the containers to ensure full incorporation and proper reaction. Mix thoroughly for at least 3 minutes using a slow-speed drill (300-400 rpm) fitted with a suitable mixing paddle, until a uniform, homogeneous colour is achieved. Keep the mixing paddle below the surface to minimise air entrapment. Do not mix by hand.
No additions or omissions are required. Do not add solvent.

APPLICATION

Sikagard®-180 SA coating shall be applied using good quality rollers or short haired brushes. It is recommended that Sikagard®-180 SA coating be applied in two coats of contrasting colours to ensure complete coverage. Prior to the application of each coat the surface should be examined for signs of pin-holing, etc.

Where pin-holing is evident these should be filled using Sikadur® ADH 2200 or Sikadur®-31 CF Slow thixotropic epoxy resin filler. If the application is delayed more than 16 hours at +40 °C or 36 hours at +20 °C after the previous coat (the higher the ambient temperature, the shorter the maximum period), then the previous coat must be thoroughly abraded to give an adequate mechanical key and solvent wiped.
Additional coats and/or embedment of Sikagard®-C glass mat can be applied to further enhance the protective performance of the system. For further information and guidance, contact Sika Technical Services.

CLEANING OF EQUIPMENT

Clean all tools with a suitable solvent-based cleaner immediately after use. Hardened and/or cured material can only be removed mechanically.

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.

Sika Gulf B.S.C. (c)
Tel: +973 177 38188
Email: info@bh.sika.com
Sika Kuwait Cons. Mat. & Paints Co WLL
Tel: +965 22 282 296
Email: sika.kuwait@kw.sika.com
Web: gcc.sika.com

Sika UAE LLC
Sika UAE LLC (Branch)
Sika International Chemicals LLC
Tel: +971 4 439 8200
Email: info@ae.sika.com
Web: gcc.sika.com

Sika Saudi Arabia Limited
Riyadh / Jeddah / Dammam / Rabigh
Tel: +966 9200 22167
Email: info@sa.sika.com
Web: gcc.sika.com

Sika MB LLC
Oman
Tel. +968 22 826 500
Email: info@om.sika.com
Web: gcc.sika.com