

PRODUCT DATA SHEET

Sikagard®-63

Chemical resistant epoxy protective coating

DESCRIPTION

Sikagard®-63 is a solvent free, two part, total solid, coloured epoxy resin based high build thixotropic protective coating with high chemical resistance. It can be used on many types of structures or elements such as cementitious, metallic and epoxy resin binder substrates. The chemical resistant properties provide surface protection from aggressive chemicals that can cause rapid degradation.

USES

Chemical resistant protective coating on:

- Concrete
- Stone
- Cementitious mortars
- Renderings
- Epoxy cement
- Epoxy resin-based products
- Steel

Chemical resistant protective lining for:

- Silos
- Bund linings
- Chemical mixing tanks
- Chemical containment tanks
- Fuel and oil tanks
- Sludge tanks
- Industrial chemical areas
- Sewage, effluent and waste water treatment

Anti-corrosion coating on steel elements within:

- Food processing plants
- Sewage treatment works
- Chemical and pharmaceutical facilities
- Beverage facilities

CHARACTERISTICS / ADVANTAGES

- Good chemical resistance
- Good temperature resistance
- Good abrasion resistance
- Solvent free
- Low VOC emissions
- High build
- Impervious to liquids
- Easy to mix
- Applied by brush, roller or airless spray

PRODUCT INFORMATION

Chemical base	Epoxy resin	
Packaging	Part A+B pre-batched	4 kg set
	Part A (Coloured resin)	3 kg container
	Part B (Hardener)	1 kg container
Shelf life	12 months from date of production	

Storage conditions

The product must be stored in original, unopened and undamaged sealed packaging in dry conditions at temperatures between +10 °C and +30 °C.

Appearance / Colour

Part A (Resin)	Coloured, Liquid
Part B (Hardener)	Brownish, Liquid

Selected RAL colours available, please consult with Sika representative for more details.

IMPORTANT

Applied colours selected from colour charts will be approximate.

IMPORTANT

The product uses an aromatic hardener and may change colour after application. If final colour is of prime importance, select alternative Sika products.

IMPORTANT

Colour uniformity cannot be completely guaranteed from batch to batch. Do not mix batch numbers in a single area.

IMPORTANT

For colour matching: Apply colour sample and confirm selected colour under real lighting conditions.

IMPORTANT

When product is exposed to direct UV exposure (sun, lamp, skylight, etc.), there may be some discolouration and colour variation, this has no influence on the function and performance of the coating.

Density

Part A+B mixed	~1.5 kg/L
Part A	~1.60 kg/L
Part B	~1.11 kg/L

All density values at +27 °C.

Solid content by weight

100 %

TECHNICAL INFORMATION**Tensile adhesion strength**

Concrete	> 1.5 N/mm ² (failure in concrete)	(ISO 4624)
Steel (SA 2.5)	> 15 N/mm ²	(ISO 4624)

Heat resistance

Exposure*	Dry Heat
Permanent	+ 40 °C
Short-term max. 3 d	+ 60 °C

Short-term moist/wet heat* up to + 60 °C where exposure is only occasional (steam cleaning etc.).

*No simultaneous chemical and mechanical exposure.

Chemical resistance

Test medium	24 h	7 d	42 d	6 m
Acetone	A	A	A	A
Ethanol 96 %	A	A	A	A
Formic acid 10 %	A	A	A	A
Acetic acid 20 %	A	A	D	D
Water	A	A	A	A
NaOH 50 %	A	A	A	A
Nitric acid 20 %	D	C	-	-
Hydrochloric acid 37 %	D	D	D	D
Sulphuric acid 50 %	A	D	D	D

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acc. IS 4631-1968, +30 °C

A = resistant, C = not resistant, D = resistant but with discolouration and/or loss of gloss

SYSTEM INFORMATION

Systems	Roller coating (concrete surface):	
	Primer*	1–2 × Sikagard®-67/ Sikafloor®-161 HC
	Coating	2–3 × Sikagard®-63
	High build lamination (1.5–2.0 mm):	
	Primer	1 × Sikafloor®-161 HC
	1st lamination layer	1 × Sikagard®-63 + Sika® Fabric-50
	2nd lamination layer	1 × Sikagard®-63 + Sika® Fabric-50
	Seal coat	1 × Sikagard®-63

APPLICATION INFORMATION

Mixing ratio	Part A : Part B = 3: 1 (by weight)		
Consumption	Coating System	Product	Consumption
	Scratch coat (optional)	Sikafloor®-161 HC + Sika® Quartz 01 IN	Refer to PDS
	Primer	Sikagard®-67 / Sikafloor®-161 HC	0.2–0.4 kg/m ²
	Roller coating	Sikagard®-63	0.3–0.5 kg/m ² per coat, dependent on substrate condition and required coating thickness
	Lamination	Sikagard®-63 + Sika® Fabric-50	1st layer: 0.7 kg/m ² 2nd layer: 0.6 kg/m ² Seal coat: 0.4 kg/m ²
	Note: For a theoretical dry film thickness of 100 microns (0.1 mm) approx. 0.15 kg/m ² must be applied. These figures are theoretical and do not allow for any additional material due to surface porosity, surface profile, variations in level and wastage etc.		
Ambient air temperature	+8 °C min. / +35 °C max.		
Relative air humidity	80 % max.		
Dew point	Beware of condensation. The substrate and uncured applied floor material must be at least +3 °C above dew point to reduce the risk of condensation or blooming on the finish.		
Substrate temperature	+8 °C min. / +35 °C max.		
Substrate moisture content	< 4 % parts by weight Test method: Sika®-Tramex meter, CM-measurement or Oven-dry-method. No rising moisture according to ASTM (Polyethylene-sheet).		
Pot life	Temperature	Pot life	
	+10 °C	~90 minutes	
	+20 °C	~45 minutes	
	+30 °C	~35 minutes	

Waiting time / Overcoating

Before applying Sikagard®-63 on Sikafloor®-161 HC allow:

Substrate Temperature	Minimum	Maximum
+10°C	24 hours	4 days
+20°C	12 hours	2 days
+30°C	6 hours	1 day

Before applying Sikagard®-63 on Sikagard®-63 allow:

Substrate Temperature	Minimum	Maximum
+10°C	9 hours	3 days
+20°C	5 hours	2 days
+30°C	4 hours	1 day

Note: Times are approximate and will be affected by changing ambient conditions particularly temperature and relative humidity.

Applied product ready for use

Temperature	Foot traffic	Full cure
+10 °C	~24 hours	~15 days
+20 °C	~18 hours	~9 days
+30 °C	~12 hours	~7 days

Note: Times are approximate and will be affected by changing ambient conditions.

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.

FURTHER DOCUMENTS

Method Statement: Sikagard®-63

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

IMPORTANT

Strictly follow installation procedures

Strictly follow installation procedures as defined in Method Statements, application manuals and working instructions which must always be adjusted to the actual site conditions.

EQUIPMENT

Mixing

- Electric single paddle mixer (300 to 400 rpm)

Application

- Squeegee
- Short pile roller

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 oil, grease, coatings and surface treatments, etc.

SUBSTRATE PREPARATION

IMPORTANT

Incorrect treatment of cracks

The incorrect assessment and treatment of cracks may lead to a reduced service life and reflective cracking.

- Concrete substrates must be prepared mechanically using abrasive blast cleaning or scarifying equipment or diamond grinding machine to remove cement laitance and achieve an open textured surface.
- Weak concrete must be removed and surface defects such as blow holes and voids must be fully exposed.
- Repairs to substrate, filling of blowholes/voids and surface levelling must be carried out using appropriate products from the Sikafloor®, Sikadur® and Sikagard® range of materials.
- High spots can be removed by grinding.
- All dust, loose and friable material must be completely removed from all surfaces before application of the product, preferably by brush and/or vacuum.
- The concrete or screed substrate has to be primed or levelled in order to achieve an even surface.

MIXING

IMPORTANT

Mix full units only

1. Mix Part A (resin) until the coloured pigment is dispersed and a uniform colour is achieved.
2. Add Part B (hardener) to Part A.
3. Mix Part A+B continuously for 2 minutes until a uniformly coloured mix is achieved. Note: Avoid excessive mixing to minimise air entrainment.
4. To ensure thorough mixing, pour materials into another container and mix again to achieve a smooth

- and uniform mix.
- During the final mixing stage, scrape down the sides and bottom of the mixing container with a flat or straight edge trowel at least once to ensure complete mixing.
 - Wait for approx 3 minutes before application.

APPLICATION

IMPORTANT

Application in high moisture

If > 4 % pbw moisture content, Sikafloor® EpoCem® may be applied as a T.M.B. (temporary moisture barrier) system.

IMPORTANT

Protecting the material after application

After application, protect the system from damp, condensation and direct water contact for at least 24 hours.

IMPORTANT

Temporary heating

If temporary heating is required, do not use gas, oil, paraffin or other fossil fuel heaters. These produce large quantities of both carbon dioxide and water vapour, which may adversely affect the finish.

- For heating, use only electric powered warm air blower systems.

COATING OR LAMINATION APPLICATION

- Apply the Product with a stiff brush or a short piled, solvent resistant roller.
- Back roll the surface in two directions at right angles with a short pile roller.
- (For lamination only) The fabric should be embedded in the 'wet' Sikagard®-63 using a special profiled roller

Note: Maintain a "wet edge" during application for a seamless finish.

Note: Avoid puddles on the surface during application.

CLEANING OF TOOLS

Clean all tools and application equipment with Sika® Thinner C or suitable solvent immediately after use. Hardened 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.

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