

PRODUCT DATA SHEET

SikaCor[®] EG-1

High-Solid epoxy-based intermediate coat

PRODUCT DESCRIPTION

SikaCor EG-1 is a 2-pack intermediate coat based on epoxy resin containing micaceous iron oxide.

Low solvent content referring to Protective Coatings Directive of German Paint Industry Association (VdL-RL 04)

USES

SikaCor EG-1 is designed as a mechanically resistant intermediate coat on steel surfaces exposed to atmospheric conditions, hot-dip galvanized steel, zinc-spray, stainless steel and aluminium.

In combination with 2-pack primer and top coats, SikaCor EG-1 is a mechanically water and chemically resistant coating system for durable corrosion protection, corrosivity category C5-I resp. C5-M, protection duration 'high' according to 'DIN EN ISO 12944-5'.

PROPERTIES

- Excellent adhesion to galvanizing, stainless steel and aluminium
- High film thickness per coat (up to 120 microns)
- Very good corrosion protection
- Tough elastic and dense but not brittle
- Widely insensitive against shock and impact

TESTS

APPROVAL / STANDARDS

SikaCor EG-1 is approved according to German standard 'TL/TP-KOR-Stahlbauten', page 87.

Suitability on galvanizing according German guideline AGK B1

PRODUCT DATA

COLOUR SHADES

Grey metallic DB 701, DB 702, DB 703
Green metallic DB 601
White

Slight colour deviations are possible due to raw material characteristics.

PACKAGING

SikaCor EG-1: 30, 15 and 3 kg net.
Sika Thinner EG: 25, 10 and 3 litres
SikaCor Cleaner: 25, 160 litres

SHELF LIFE

In original sealed containers in a cool and dry environment: 3 years

SYSTEMS

COATING SYSTEMS

Steel:

Used as intermediate coat on 2-pack primer coats of Sika Deutschland GmbH for e.g.:

SikaCor Zinc R
SikaCor Zinc R Rapid
SikaCor EG Phosphat
SikaCor EG Phosphat Rapid
SikaCor Poxicolor Primer HE NEW
As intermediate coat on SikaCor Zinc ZS

Suitable top coats:

Versatile overcoatable with 1 or 2-pack products of Sika Deutschland GmbH

Galvanized steel, aluminium and stainless steel:

1 x SikaCor EG-1
1 x top coat (see above)

SURFACE PREPARATION

Steel:

Blast cleaning to Sa 2 ½ according to DIN EN ISO 12944, part 4.
Free from dirt, oil and grease.

Galvanized steel, stainless steel and aluminium:

Free from dirt, oil, grease and corrosion products.
In case of permanent immersion and condensation the surfaces must be slightly sweep blasted with a ferrite-free blasting abrasive.
For contaminated surfaces e.g. galvanized or primed areas we recommend cleaning with SikaCor Wash.

TECHNICAL DATA

MATERIAL CONSUMPTION

Product	Specific gravity liquid approx. kg/L	Solids content approx. %		Theoretical material-consumption/VOC without loss for medium dry film thickness			
		by vol.	by weight	dry microns	wet microns	approx. kg/m ²	VOC approx. g/m ²
SikaCor EG-1	1.6	60	77	80	135	0.215	49.1

For spray application: The dry film thickness of the primer coat does not respect the correction factors on rough surfaces according to ISO 19840. With SikaCor EG-1 up to 120 microns dry film thickness per operation can be achieved by spray.

MIXING RATIO

(COMPONENTS A : B)

By weight 90 : 10

By volume 4.7 : 1

RESISTANCE**CHEMICAL RESISTANCE**

Weather, water, sewage, seawater, smoke, de-icing salts, acid and lye vapours, oils, grease and short term exposure to fuels and solvents.

TEMPERATURE RESISTANCE

dry heat up to + 150° C, short term up to + 180° C

damp heat up to approx. + 50°C

In case of higher temperatures please consult us.

HINTS OF APPLICATION**MIXING INSTRUCTIONS/
MIXING TIME**

Stir component A very thoroughly using an electric mixer (start slowly, then increase up to approx. 300 rpm). Add component B carefully and mix both components very thoroughly (including sides and bottom of the container). Mix for at least 3 minutes until a homogeneous mixture is achieved. Fill mixed material into clean container and mix again shortly as described above. During mixing and handling of the materials always wear protective goggles, suitable gloves and other protective clothings.

APPLICATION METHOD

The method of application has a major effect on achieving uniform thickness and appearance. Spray application will give the best results. The indicated dry film thickness is easily achieved by airless spray and by brush. Adding solvents reduces the sag resistance and the dry film thickness. In case of application by roller or brush, additional applications may become necessary to achieve the required coating thickness, depending on type of construction, site conditions, colour shade etc. Prior to major coating operations a test application on site may be useful to ensure the selected application method will provide the requested results.

By brush and roller**Conventional high pressure spraying:**

Nozzle size 1.5 – 2.5 mm; pressure 3 – 5 bar, oil and water trap is compulsory.

Airless-spraying:

With a spray pressure in gun of min. 180 bar;

Nozzle size 0.38 – 0.53 mm (0.015 – 0.021 inch); spray angle 40° - 80°.

APPLICATION CONDITIONS

Min. + 5 °C (material and surface)

Relative humidity: Max. 85 %, except the surface temperature is significantly higher than the dew point temperature, it shall be at least 3 K above dew point.

If necessary max. 5% Sika Thinner EG may be added to adapt the viscosity.

POTLIFE

At + 10° C approx. 12 hours

At + 20° C approx. 8 hours

At + 30° C approx. 5 hours

DRYING STAGE 6 (EN ISO 9117-5)

Product	Dry film thickness	+ 5°C after	+ 10°C after	+ 20°C after	+ 40°C after	+ 80°C after
SikaCor EG-1	80 µm	12 h	9.5 h	6 h	75 min	20 min

WAITING TIME BETWEEN COATS

Min.: until drying degree 6 is achieved

Max.: 4 years

In case of longer waiting times please contact Sika.

Prior to further applications possible contamination must be removed (see page 2 surface preparation).

FINAL DRYING TIME	Depending on film thickness and temperature full hardness is achieved after 1-2 weeks.
THINNER	Sika Thinner EG
CLEANING OF EQUIPMENT	SikaCor Cleaner

IMPORTANT NOTICE

DIRECTIVE 2004/42/EC (DECOPAINT)

For product category IIA / j, Type SB, the maximum permissible content of VOC as per directive 2004/42/EC is 500 g/litre (limit 2010).

The maximum content of SikaCor EG-1 remains below 500 g/litre VOC.

VALUE BASE

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.

LOCAL RESTRICTIONS

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

HEALTH AND SAFETY INFORMATION

GISCODE: RE 3

This coding enables additional information and help with the creation of operating instructions (WINGIS online) to be obtained on the BG Bau service pages (www.gisbau.de).

Skin contact with epoxy resins can lead to allergies!

Avoid direct skin contact at all costs when handling epoxy resins!

For the selection of suitable protective equipment, we have made our information data sheets 7510 'General notes on occupational safety' and 7511 'General notes for wearing protective gloves' available at www.sika.de. In conjunction with this we also recommend the BG Bau service pages for information regarding the handling of epoxy resins (www.gisbau.de/service/epoxi/epoxi.htm).

Information on the safe handling of chemical products, as well as the essential physical, safety-related, toxicological and ecological data can be found in the current safety data sheets. Observe all relevant regulations, e.g. the hazardous substances act. Further notes and information data sheets on product safety and disposal can be found on the Internet at www.sika.de.

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. The most recent product data sheet applies. This can be requested from us or is available to download at www.sika.de. Please check availability of local product data sheet at your local website. In cases of doubt the German text is valid.

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