SikaCor® EG-1 VHS

DESCRIPTION
SikaCor® EG-1 VHS is a 2-pack primer and intermediate coat based on epoxy resin containing micaceous iron oxide.
Low solvent content acc. to Protective Coatings Directive of German Paint Industry Association (VdL-RL 04).

USES
SikaCor® EG-1 VHS may only be used by experienced professionals.
Designed as a mechanically resistant primer and intermediate coat on steel surfaces, hot-dip galvanized steel, stainless steel and aluminium exposed to atmospheric conditions.
In combination with 2-pack top coats, SikaCor® EG-1 VHS offers a mechanically, water and chemically resistant coating system for long-life corrosion protection up to corrosivity category C5 high acc. to ISO 12944-2.

CHARACTERISTICS / ADVANTAGES
- Excellent adhesion to hot dip galvanized steel, stainless steel and aluminium
- Broad range of dry film thicknesses per coat from 80 - 200 μm
- VOC content less than 250 g/l
- Fast curing at low temperatures
- Very short overcoating intervals

APPROVALS / CERTIFICATES
- Approved according to German standard ‘TL/TP-KOR-Stahlbauten’, page 94.

PRODUCT INFORMATION

<table>
<thead>
<tr>
<th>Packaging</th>
<th>SikaCor® EG-1 VHS</th>
<th>30 kg and 15 kg net.</th>
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<tbody>
<tr>
<td>Sika® Thinner EG</td>
<td>25 l, 10 l and 3 l</td>
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<thead>
<tr>
<th>Appearance / Colour</th>
<th>Grey metallic approx. DB 702, approx. DB 703</th>
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<td>Green metallic approx. DB 601</td>
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<td>Other colours upon request</td>
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<td>Slight colour deviations are possible due to raw material characteristics.</td>
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Shelf life
- 2 years

Storage conditions
- In original sealed containers in a cool and dry environment.

Density
- ~1.8 kg/l

Solid content
- ~78 % by volume
- ~90 % by weight
TECHNICAL INFORMATION

**Mechanical Resistance**
Highly resistant to transport and assembly stresses.

**Chemical Resistance**
Water, seawater, sewage, diluted inorganic acid and alkalis, salts, detergents, greases, oils and short-term exposure to fuels and solvents.

**Thermal Resistance**
Dry heat up to approx. +150°C, short-term up to +200°C
Damp heat up to approx. +50°C

SYSTEM INFORMATION

**System**
- **Steel:**
  - 1 x Sika Poxicolor® Primer HE NEW or SikaCor® Zinc R
  - 1 x SikaCor® EG-1 VHS
  - 1 x SikaCor® or Sika® Permacor® top coats
  - In case of exposure to permanent condensation use SikaCor® Zinc R as primer.

  **Hot dip galvanised steel, stainless steel and aluminium:**
  - 1 x SikaCor® EG-1 VHS
  - 1 x SikaCor® EG-4 or SikaCor® EG-5

  In case of light 2-pack PUR topcoat colours a 2nd coat may become necessary for perfect opacity.

APPLICATION INFORMATION

**Mixing Ratio**
- By weight: 87 : 13
- By volume: 3.2 : 1

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

**Consumption**
Theoretical material-consumption/VOC without loss for medium dry film thickness:
- Dry film thickness 80 μm
- Wet film thickness 100 μm
- Consumption ~0.185 kg/m²
- VOC ~18.5 g/m²
- Dry film thickness 160 μm
- Wet film thickness 200 μm
- Consumption ~0.370 kg/m²
- VOC ~36.9 g/m²

**Product Temperature**
Min. +5°C

**Relative Air 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.

**Surface Temperature**
Min. +5°C

**Pot Life**
At +20°C ~2 h

**Drying Stage 6**
- Dry film thickness 80 μm: +5°C after 10 h, +15°C after 7 h, +20°C after 4 h, +30°C after 2 h
- Dry film thickness 160 μm: +5°C after 16 h, +15°C after 9 h, +20°C after 5 h, +30°C after 3 h

**Waiting Time / Overcoating**
Min.: until drying stage 6 is achieved
Max.: unlimited
Prior to further applications possible contamination must be removed.

**Drying time**
Final drying time
At +20°C and good ventilation 5-7 days.
APPLICATION INSTRUCTIONS

SURFACE PREPARATION

Steel:
Blast-cleaning to Sa 2½ according to ISO 12944-4. Free from dust, dirt, grease and oil.

Hot dip galvanized steel, stainless steel, aluminium:
Free from dirt, oil, grease and corrosion products. In case of permanent 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 to clean with SikaCor® Wash.

MIXING

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

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. 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 or roller

Airless spraying:
• High performance airless equipment
• Pressure min. 180 bar
• Nozzle size 0.38 - 0.53 mm (0.15 - 0.21 inch)
• Spraying angle 40° - 80°

CLEANING OF TOOLS

Sika® Thinner EG

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.

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 the exact product data and uses.

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. Further notes and information data sheets on product safety and disposal can be found on the Internet at www.sika.de.

GICODE: 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.bgbau.de. In conjunction with this we also recommend the BG Bau service pages for information regarding the handling of epoxy resins (www.bgbau.de/gisbau/fachthemen/epoxi).

DIRECTIVE 2004/42/CE - LIMITATION OF EMISSIONS OF VOC

According to the EU Directive 2004/42/CE, the maximum allowed content of VOC (product category IIA / j type Sb) is 500 g/l (Limits 2010) for the ready to use product.

The maximum content of SikaCor® EG-1 VHS is < 500 g/l VOC for the ready to use product.

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.