

# PRODUCT DATA SHEET

## SikaCor® ZP-1 VHS

Very high solid, high-performance polyurethane intermediate coat

Made in Germany

### DESCRIPTION

SikaCor® ZP-1 VHS is a 2-pack, weather resistant intermediate coat based on aliphatic polyurethane. Low solvent content according to Protective Coatings Directive of German Paint Industry Association (VdL-RL 04).

### USES

SikaCor® ZP-1 VHS may only be used by experienced professionals.

Use as intermediate coat, if overcoating with polyurethane top coats and longer waiting times are expected.

In combination with 2-pack primers and top coats, SikaCor® ZP-1 VHS offers a mechanically, water and chemically resistant coating system for long-life corrosion protection up to corrosivity category C5 extreme high acc. TL/TP-KOR-Stahlbauten.

### CHARACTERISTICS / ADVANTAGES

- Very low solvent content
- Unlimited over-coatable with PUR top coats
- Fast curing even at low temperatures
- Very good weather resistance
- High system compatibility with PUR top coats

### APPROVALS / CERTIFICATES

- Tested according to 'TL KOR-Stahlbauten, Blatt 100'. A certificate of conformity is available.

### PRODUCT INFORMATION

|                              |  |                    |
|------------------------------|--|--------------------|
| <b>Packaging</b>             | SikaCor® ZP-1 VHS  | 30 kg net.         |
|                              | Sika® Thinner EG   | 25 l, 10 l and 3 l |
| <b>Appearance and colour</b> | RAL 6019; white<br>Other colours upon request.                 |                    |
| <b>Shelf life</b>            | 2 years  |                    |
| <b>Storage conditions</b>    | In originally sealed containers in a cool and dry environment. |                    |
| <b>Density</b>               | ~ 1.5 kg/l   |                    |
| <b>Solid content</b>         | ~ 74 % by volume   |                    |
|                              | ~ 85 % by weight   |                    |

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## TECHNICAL INFORMATION

|                               |  |
|-------------------------------|--|
| <b>Mechanical resistance</b>  | Highly resistant to transport and assembly stresses.   |
| <b>Chemical resistance</b>    | Water, seawater, sewage, acid and lye vapours, salts, detergents, greases, oils and short-term exposure to fuels and solvents. |
| <b>Temperature resistance</b> | Dry heat up to approx. + 120°C, short term up to + 150°C<br>Damp heat up to approx. + 40°C                                     |

## SYSTEM INFORMATION

|               |   |
|---------------|---|
| <b>System</b> | <b>Steel</b><br>Used as intermediate coat on top of Sika primers e.g.: <ul style="list-style-type: none"><li>▪ SikaCor® Zinc R (Plus)</li><li>▪ SikaCor® Zinc R Rapid (Plus)</li><li>▪ SikaCor® EG Phosphat Plus</li><li>▪ SikaCor® EG-1 Plus</li></ul><br>Suitable top coats:<br>Versatile overcoatable with 1- or 2-pack SikaCor® and Sika® Permacor® products.<br><br>e. g. System acc. 'Blatt 100'; TL-KOR-Stahlbauten<br>1x SikaCor® Zinc R<br>1x SikaCor® EG-1 Plus<br>1x SikaCor® ZP-1 VHS<br>1x SikaPermacor®-2230 VHS<br><br><b>Hot-dip galvanized steel, aluminium and stainless steel</b><br>1x SikaCor® EG-1 Plus<br>1x SikaCor® ZP-1 VHS<br>1 x top coat (see above) |
|---------------|---|

## APPLICATION INFORMATION

|                              |   |                    |         |                    |         |             |                          |     |                      |
|------------------------------|---|--------------------|---------|--------------------|---------|-------------|--------------------------|-----|----------------------|
| <b>Mixing ratio</b>          | Components A : B<br><table><tr><td>By weight</td><td>88 : 12</td></tr><tr><td>By volume</td><td>4.8 : 1</td></tr></table>   | By weight          | 88 : 12 | By volume          | 4.8 : 1 |             |                          |     |                      |
| By weight                    | 88 : 12   |                    |         |                    |         |             |                          |     |                      |
| By volume                    | 4.8 : 1   |                    |         |                    |         |             |                          |     |                      |
| <b>Thinner</b>               | Sika® Thinner EG<br>If necessary max. 3% Sika® Thinner EG may be added to adapt the viscosity.  |                    |         |                    |         |             |                          |     |                      |
| <b>Consumption</b>           | Theoretical material-consumption/VOC without loss for medium dry film thickness: <table><tr><td>Dry film thickness</td><td>120 µm</td></tr><tr><td>Wet film thickness</td><td>162 µm</td></tr><tr><td>Consumption</td><td>~0.243 kg/m<sup>2</sup></td></tr><tr><td>VOC</td><td>~36 g/m<sup>2</sup></td></tr></table><br>The dry film thickness of SikaCor® ZP-1 VHS should not exceed 360 µm per layer. | Dry film thickness | 120 µm  | Wet film thickness | 162 µm  | Consumption | ~0.243 kg/m <sup>2</sup> | VOC | ~36 g/m <sup>2</sup> |
| Dry film thickness           | 120 µm  |                    |         |                    |         |             |                          |     |                      |
| Wet film thickness           | 162 µm  |                    |         |                    |         |             |                          |     |                      |
| Consumption                  | ~0.243 kg/m <sup>2</sup>  |                    |         |                    |         |             |                          |     |                      |
| VOC                          | ~36 g/m <sup>2</sup>  |                    |         |                    |         |             |                          |     |                      |
| <b>Material temperature</b>  | Min. + 5 °C   |                    |         |                    |         |             |                          |     |                      |
| <b>Relative air humidity</b> | Max. 80 %, except the surface temperature is significantly higher than the dew point temperature, it shall be at least 3 K above dew point.<br>The surface must be dry and free from ice.   |                    |         |                    |         |             |                          |     |                      |
| <b>Surface temperature</b>   | Min. + 5 °C   |                    |         |                    |         |             |                          |     |                      |
| <b>Pot Life</b>              | At + 20 °C ~ 1.5 h  |                    |         |                    |         |             |                          |     |                      |

|              | Dry film thickness 120µm |
|--------------|--------------------------|
| + 5°C after  | 12 h                     |
| + 20°C after | 5 h                      |
| + 30°C after | 2 h                      |

**Waiting time to overcoating**

**Min.:** Until drying stage 6 is achieved.

Higher layer thicknesses, but also lower temperatures than specified, lead to longer drying times. The overcoating intervals can be delayed and may need to be determined on site.

**Max.:** unlimited

**Prior to further applications:** After a waiting period or after exposure to weathering, all possible contamination must be removed from the surface before the subsequent coating is applied.

**Drying time****Final drying time**

At + 20°C and good ventilation 5 - 7 days. Tests of the completed coating system should only be carried out after final curing.

**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.

**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**Steel:

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

For contaminated and weathered surfaces 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 and roller:

- Apply undiluted

Airless spraying:

- Pressure min. 180 bar
- Nozzle size 0.38 - 0.53 mm (0.015 - 0.021 inch)
- Spraying angle 40° - 80°

**CLEANING OF EQUIPMENT**

Sika® Thinner EG

**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.

**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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