

PRODUCT DATA SHEET

SikaCor® Zinc ZS

Zinc silicate primer for steel

Made in Germany

DESCRIPTION

1-pack, high pigmented zinc rich primer based on ethyl silicate for steel.
Low solvent content according to Protective Coatings Directive of German Paint Industry Association (VdL-RL 04).

USES

SikaCor® Zinc ZS may only be used by experienced professionals.

Sophisticated corrosion protection coating for blast cleaned steel surfaces with and without top coats. SikaCor® Zinc ZS is suitable for steel structures above and below water, ship building, steel construction, pipe lines, storage tanks, containers etc. With up to 20 µm film thickness SikaCor® Zinc ZS is also suitable as a weldable shop primer.

CHARACTERISTICS / ADVANTAGES

- Fast curing and fast stackable time
- Abrasion and temperature resistant
- Water and weather resistant

APPROVALS / CERTIFICATES

- Approved according to German standard 'TL KOR-Stahlbauten', page 86 (including friction screw connections).
- Approved according to DIN EN ISO 17652-2 as weldable shop primer.

PRODUCT INFORMATION

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| Packaging | SikaCor® Zinc ZS | 25 kg net. |
| | Sika® Thinner B | 10 l and 3 l |
| Appearance and colour | Zinc grey, mat | |
| Shelf life | 1 year | |
| Storage conditions | In originally sealed containers in a cool and dry environment. | |
| Density | ~2.3 kg/l | |
| Solid content | ~64.5 % by volume | |
| | ~82 % by weight | |

TECHNICAL INFORMATION

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| Chemical resistance | The fully cured material is weather and water resistant, as well as resistant to mechanical wear. |
| Temperature resistance | Dry heat up to approx. + 400°C Damp heat up to approx. + 50°C |

SYSTEM INFORMATION

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| System | <p><u>Priming coat for steel:</u> 1 - 2 x SikaCor® Zinc ZS</p> <p><u>When no top coat is required:</u> 2 x SikaCor® Zinc ZS</p> <p><u>Weldable shop coating:</u> 1 x SikaCor® Zinc ZS dry film thickness 20 microns</p> <p><u>Suitable top coats:</u> If SikaCor® EG-1 is being used as intermediate coat, all 1- and 2-pack products are suitable</p> |
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APPLICATION INFORMATION

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| Thinner | Sika® Thinner B If necessary max. 3 % Sika® Thinner B may be added to adapt the viscosity. In case of weldable shop coating add approx. 5 % b.w. Sika® Thinner B. |
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|--------------------|--|--------------------------|-------|-------|--------------------|-------|-------|-------------|--------------------------|--------------------------|-----|------------------------|------------------------|
| Consumption | Theoretical material-consumption/VOC without loss for medium dry film thickness: <table><tr><td>Dry film thickness</td><td>20 µm</td><td>60 µm</td></tr><tr><td>Wet film thickness</td><td>30 µm</td><td>95 µm</td></tr><tr><td>Consumption</td><td>~0.070 kg/m²</td><td>~0.215 kg/m²</td></tr><tr><td>VOC</td><td>~12.8 g/m²</td><td>~38.5 g/m²</td></tr></table> <p>Apart from small areas the dry film thickness of SikaCor® Zinc ZS should not exceed 150 microns per layer.</p> | Dry film thickness | 20 µm | 60 µm | Wet film thickness | 30 µm | 95 µm | Consumption | ~0.070 kg/m ² | ~0.215 kg/m ² | VOC | ~12.8 g/m ² | ~38.5 g/m ² |
| Dry film thickness | 20 µm | 60 µm | | | | | | | | | | | |
| Wet film thickness | 30 µm | 95 µm | | | | | | | | | | | |
| Consumption | ~0.070 kg/m ² | ~0.215 kg/m ² | | | | | | | | | | | |
| VOC | ~12.8 g/m ² | ~38.5 g/m ² | | | | | | | | | | | |

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| Material temperature | Min. + 5°C, max. + 50°C |
| Relative air humidity | Min. 50 %, max. 90 %, surface temperature shall be at least 3 K above dew point. If humidity is less 50 %, curing is prolonged. |
| Surface temperature | Min. + 5°C, max. + 50°C |

| Drying stage 6 | <table><thead><tr><th></th><th>DFT 20 µm</th><th>DFT 60 µm</th><th>(ISO 9117-5)</th></tr></thead><tbody><tr><td>+ 5°C 50 % RH after</td><td>6 min</td><td>12 min</td><td></td></tr><tr><td>+ 23°C 50% RH after</td><td>4 min</td><td>8 min</td><td></td></tr></tbody></table> | | DFT 20 µm | DFT 60 µm | (ISO 9117-5) | + 5°C 50 % RH after | 6 min | 12 min | | + 23°C 50% RH after | 4 min | 8 min | |
|------------------------|---|-----------|--------------|-----------|--------------|------------------------|-------|--------|--|------------------------|-------|-------|--|
| | DFT 20 µm | DFT 60 µm | (ISO 9117-5) | | | | | | | | | | |
| + 5°C 50 % RH after | 6 min | 12 min | | | | | | | | | | | |
| + 23°C 50% RH after | 4 min | 8 min | | | | | | | | | | | |

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|-----------------------------|--|------|-----|------|-----------|------|------|------|-----------|
| Waiting time to overcoating | <p><u>Between SikaCor® Zinc ZS coats:</u></p> <table><tr><td>Min.</td><td>4 h</td></tr><tr><td>Max.</td><td>unlimited</td></tr></table> <p><u>Between SikaCor® Zinc ZS and SikaCor® EG-1:</u></p> <table><tr><td>Min.</td><td>24 h</td></tr><tr><td>Max.</td><td>unlimited</td></tr></table> | Min. | 4 h | Max. | unlimited | Min. | 24 h | Max. | unlimited |
| Min. | 4 h | | | | | | | | |
| Max. | unlimited | | | | | | | | |
| Min. | 24 h | | | | | | | | |
| Max. | unlimited | | | | | | | | |

Note: Whilst overcoating of SikaCor® Zinc ZS blisters and/or pores may occur. Therefore as prevention it is necessary to spray a thin layer of SikaCor® EG-1, diluted with 8 - 10 % b.w. Sika® Thinner EG, as a sealer coat. Afterwards spray 'wet on wet' the missing layer thickness of SikaCor® EG-1.

Drying time

Final drying time

Depending on layer thickness, temperature and air humidity final hardness is achieved within 1-2 days.

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.

MIXING

The material is supplied ready for use. Stir thoroughly prior and during application, preferably with a power stirrer. Containers must not be opened until shortly before commencing application, close tightly after use.

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 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:

- Only suitable for small areas, e.g. repairs

Conventional high pressure spraying:

- Nozzle size 1.7 - 2.5 mm
- Pressure 2 - 3 bar
- Oil and water trap is compulsory

Airless-spraying:

- Pressure approx. 100 bar
- Nozzle size 0.38 - 0.53 mm (0.015 - 0.021 inch)
- Spraying angle 50° - 80°
- Remark: Choose short spray distance to avoid 'dry spraying'

CLEANING OF EQUIPMENT

Sika® Thinner B

Cleaning of equipment must be carried out immediately after completion of work, as long as SikaCor® Zinc ZS has not dried up. 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 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.

Sika Deutschland GmbH

Industrial Coatings
Rieter Tal
D-71665 Vaihingen / Enz
Phone: +49 (0)7042 109-0
industrial-coatings@de.sika.com
www.sika.de



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