

## PRODUCT DATA SHEET

# SikaCor® Zinc R Rapid Plus

Future name: Zinc Clad® R Rapid Plus

Fast curing, low-solvent epoxy zinc-rich primer for steel

### DESCRIPTION

2-pack, highly pigmented, fast curing zinc-rich primer of low solvent content, based on epoxy resin. Low solvent content according to Protective Coatings Directive of German Paint Industry Association (VdL-RL 04).

### USES

SikaCor® Zinc R Rapid Plus may only be used by experienced professionals.

Designed as a mechanically resistant zinc-rich coating for steel surfaces exposed to atmospheric conditions. Mainly for bridges, pipelines, containers, industrial and harbour installations or large machinery in industrial or marine environments.

In combination with 2-pack intermediate and top coats, SikaCor® Zinc R Rapid Plus is a mechanically, water and chemically resistant coating system for durable corrosion protection up to corrosivity category C5 very high according to ISO 12944-2.

In a dry film thickness of 20 µm SikaCor® Zinc R Rapid Plus can also be used as weldable shop primer.

### CHARACTERISTICS / ADVANTAGES

- Low consumption per square meter
- Applicable at low temperatures
- Very fast drying and curing characteristics
- Excellent corrosion protection
- Mechanically extraordinary resistant

### APPROVALS / CERTIFICATES

- Approved according ISO 17652-2 as weldable shop primer
- Certificates for C5 high and very high according ISO 12944 are available
- Approved according to German standard 'TL-KOR-Stahlbauten, Blatt 97'

### PRODUCT INFORMATION

|                       |                                                                |                    |
|-----------------------|----------------------------------------------------------------|--------------------|
| Packaging             | SikaCor® Zinc R Rapid Plus                                     | 22 kg net.         |
|                       | Sika® Thinner K                                                | 25 l, 10 l and 3 l |
|                       | SikaCor® Cleaner                                               | 160 l and 25 l     |
| Appearance and colour | Tinted red, mat.-no. 697.03<br>Zinc grey                       |                    |
| Shelf life            | 1 year                                                         |                    |
| Storage conditions    | In originally sealed containers in a cool and dry environment. |                    |
| Density               | ~2.3 kg/l                                                      |                    |

|               |                 |
|---------------|-----------------|
| Solid content | ~69 % by volume |
|               | ~88 % by weight |

## TECHNICAL INFORMATION

|                        |                                                                                                 |
|------------------------|-------------------------------------------------------------------------------------------------|
| Chemical resistance    | The fully cured material is resistant to weathering, water and mechanical wear.                 |
| Temperature resistance | Dry heat up to approx. + 150°C, short term up to max. + 180°C<br>Damp heat up to approx. + 50°C |

## SYSTEM INFORMATION

|        |                                                                                                                                                                                                                                                                                                                                                                        |
|--------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| System | <b>Steel</b><br><br>Without top coat:<br>2 x SikaCor® Zinc R Rapid Plus<br><br>For priming under intermediate coat / top coat:<br>1 x SikaCor® Zinc R Rapid Plus<br>Versatile recoatable with 1- and 2-pack products of Sherwin-Williams Coatings Deutschland GmbH<br><br>e. g.<br>1 x SikaCor® Zinc R Rapid Plus<br>1 x SikaCor® EG-1 Rapid Plus<br>1 x SikaCor® EG-5 |
|--------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

## APPLICATION INFORMATION

|                                                                                                                                             |                                                                                                                                                                                           |                           |
|---------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|
| Mixing ratio                                                                                                                                | Components A : B                                                                                                                                                                          |                           |
|                                                                                                                                             | By weight                                                                                                                                                                                 | 94 : 6                    |
|                                                                                                                                             | By volume                                                                                                                                                                                 | 5.9 : 1                   |
| Thinner                                                                                                                                     | Sika® Thinner K<br>If necessary max. 3 % Sika® Thinner K may be added to adapt the viscosity. If used as weldable shop primer add approx. 15 - 20 % b.w. Sika® Thinner K.                 |                           |
| Consumption                                                                                                                                 | Theoretical material-consumption/VOC without loss for medium dry film thickness:                                                                                                          |                           |
|                                                                                                                                             | Dry film thickness                                                                                                                                                                        | 60 µm 80 µm*)             |
|                                                                                                                                             | Wet film thickness                                                                                                                                                                        | 87 µm 116 µm              |
|                                                                                                                                             | Consumption                                                                                                                                                                               | ~0.200 kg/m² ~0.267 kg/m² |
|                                                                                                                                             | VOC                                                                                                                                                                                       | ~24 g/m² ~32 g/m²         |
| *) for spray application<br>Apart from small areas the dry film thickness of SikaCor® Zinc R Rapid Plus should not exceed 150 µm per layer. |                                                                                                                                                                                           |                           |
| Material temperature                                                                                                                        | Min. + 0°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.<br>The surface must be dry and free from ice. |                           |
| Surface temperature                                                                                                                         | Min. - 10°C                                                                                                                                                                               |                           |
| Pot Life                                                                                                                                    | At + 10°C                                                                                                                                                                                 | ~8 h                      |
|                                                                                                                                             | At + 20°C                                                                                                                                                                                 | ~5 h                      |
|                                                                                                                                             | At + 30°C                                                                                                                                                                                 | ~2 h                      |

| Dry film thickness 80 µm (ISO 9117-5) |        |
|---------------------------------------|--------|
| + 0°C after                           | 4 h    |
| + 5°C after                           | 1.5 h  |
| + 10°C after                          | 0.75 h |
| + 20°C after                          | 0.5 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. A longer waiting time might be necessary to measure the dry film thickness.

**Max.:** 1 year

In case of longer waiting times please contact us.

When SikaCor® Zinc R Rapid Plus is to be overcoated after a waiting period or after exposure to weathering, all zinc corrosion products or other contaminations must be removed from the surface before the subsequent coating material is applied.

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

Depending on film thickness and temperature full hardness is achieved after 1 - 2 days.

If used as primer for a coating system with top coats the final drying time depends on them and the full hardness is usually achieved after 1 - 2 weeks, depending on film thickness and ambient temperature. 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.

**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 brushConventional high-pressure spraying:

- Nozzle size 1.7 - 2.5 mm
- Pressure 3 - 4 bar
- Oil and water trap is compulsory

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**

SikaCor® Cleaner

## 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 Sherwin-Williams' products, are given in good faith based on Sherwin-Williams' current knowledge and experience of the products when properly stored, handled and applied under normal conditions in accordance with Sherwin-Williams' 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. Sherwin-Williams 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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