

PRODUCT DATA SHEET

SikaCor® Zinc 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, pipe lines, 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 / STANDARDS

- Approved according ISO 17652-2 as weldable shop primer
- Certificates for C5 high and very high according ISO 12944 are available

PRODUCT INFORMATION

Packaging	SikaCor® Zinc R Rapid Plus	30 kg net.
	Sika® Thinner K	25 l, 10 l and 3 l
	SikaCor® Cleaner	160 l and 25 l
Appearance / Colour	Zinc grey Tinted red	
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.
Thermal Resistance	Dry heat up to approx. + 150°C, short term up to max. + 180°C Damp heat up to approx. + 50°C

SYSTEM INFORMATION

Systems	Steel
	Without top coat: 2 x SikaCor® Zinc R Rapid Plus
	For priming under intermediate coat / top coat: 1 x SikaCor® Zinc R Rapid Plus Versatile recoatable with 1- and 2-pack products of Sika Deutschland GmbH
	e. g. 1 x SikaCor® Zinc R Rapid Plus 1 x SikaCor® EG-1 Rapid Plus 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 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/m ²	~0.267 kg/m ²
	VOC	~24 g/m ²	~32 g/m ²
	*) for spray application Apart from small areas the dry film thickness of SikaCor® Zinc R Rapid Plus should not exceed 150 µm per layer.		
Product 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. 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	

0°C after	4 h
+ 5°C after	1.5 h
+ 10°C after	0.75 h
+ 20°C after	30 min

Waiting Time / 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.: 1 year

In case of longer waiting times please contact Sika.

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 Product Data Sheet are based on laboratory tests. Actual measured data may vary due to circumstances beyond our control.

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 Material Safety Data Sheet (MSDS) containing 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 TOOLS

SikaCor® Cleaner

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.

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. It may be necessary to adapt the above disclaimer to specific local laws and regulations. Any changes to this disclaimer may only be implemented with permission of Sika® Corporate Legal in Baar.

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