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PRODUCT DATA SHEET SikaCor[®] Zinc R Rapid

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 may only be used by experienced professionals.

Robust primer for steel for heavy corrosion protection, offering a wide range of applications.

It is mainly used for bridges, pipe lines, containers, industrial and harbour installations, sewage treatment plants and large machinery, submerged or not in industrial or marine environments.

Particularly suited for workshop application as heavy duty transportable coating.

CHARACTERISTICS / ADVANTAGES

- Applicable at low temperatures
- Excellent corrosion protection
- Extraordinary resistant mechanically
- Extremely high water and condensation water resistance
- Very fast drying and curing characteristics

APPROVALS / CERTIFICATES

• Approved according to German standard 'TL/TP-KOR-Stahlbauten', page 97.

PRODUCT INFORMATION	
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Packaging	SikaCor [®] Zinc R Rapid	26 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, matno. 697.03		
Shelf life	12 months		
Storage conditions	In originally sealed containers in a cool and dry environment.		
Density	~2.8 kg/l		
Solid content	~63 % by volume ~88 % by weight		

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Chemical Resistance	•	The fully cured material is resistant to weathering, water and mechanical			
Thermal Resistance		Wear.			
		Dry heat up to approx. + 150°C, short term up to max. + 180°C Damp heat up to approx. + 50°C			
SYSTEMS					
Systems	<u>Steel:</u>				
	Without top coat: 2 x SikaCor® Zinc R Rapid				
	For priming under top coat: 1 x SikaCor® Zinc R Rapid				
	Suitable top coats: Universally recoatable	e with 1- and 2-pack pro	ducts of Sika's product range.		
APPLICATION INFORM	ΙΑΤΙΟΝ				
Mixing Ratio		Compor	nents A : B		
	By weight	94 : 6			
	By volume	4.2 : 1			
Thinner	Sika® Thinner K If necessary max. 3 %	Sika® Thinner K If necessary max. 3 % Sika® Thinner K may be added to adapt the viscosity.			
Consumption	Theoretical material-consumption/VOC without loss for medium dry film thickness:				
Consumption		consumption/VOC witho	i		
Consumption	thickness: Dry film thickness	60 μm	ut loss for medium dry film80 μm ^{*)}		
Consumption	thickness: Dry film thickness Wet film thickness	60 μm 95 μm	ut loss for medium dry film 80 μm ^{*)} 130 μm		
Consumption	thickness: Dry film thickness Wet film thickness Consumption	60 μm 95 μm ~0.265 kg/m²	ut loss for medium dry film 80 μm ^{*)} 130 μm ~0.355 kg/m ²		
Consumption	thickness: Dry film thickness Wet film thickness	60 μm 95 μm	ut loss for medium dry film 80 μm ^{*)} 130 μm		
Consumption	thickness: Dry film thickness Wet film thickness Consumption VOC *) for spray application	60 μm 95 μm ~0.265 kg/m ² ~32.0 g/m ²	ut loss for medium dry film 80 μm ^{*)} 130 μm ~0.355 kg/m ² ~42.7 g/m ²		
	thickness: Dry film thickness Wet film thickness Consumption VOC *) for spray application Apart from small area	60 μm 95 μm ~0.265 kg/m ² ~32.0 g/m ²	ut loss for medium dry film 80 μm ^{*)} 130 μm ~0.355 kg/m ² ~42.7 g/m ²		
Product Temperature	thickness: Dry film thickness Wet film thickness Consumption VOC *) for spray application Apart from small area should not exceed 15 Min. + 0°C Max. 85 %		ut loss for medium dry film 80 μm ^{*)} 130 μm ~0.355 kg/m ² ~42.7 g/m ² of SikaCor [®] Zinc R Rapid		
Product Temperature Relative Air Humidity	thickness: Dry film thickness Wet film thickness Consumption VOC *) for spray application Apart from small area should not exceed 15 Min. + 0°C Max. 85 % Surface temperature		ut loss for medium dry film 80 μm ^{*)} 130 μm ~0.355 kg/m ² ~42.7 g/m ² of SikaCor [®] Zinc R Rapid		
Product Temperature Relative Air Humidity Surface Temperature	thickness: Dry film thickness Wet film thickness Consumption VOC *) for spray application Apart from small area should not exceed 15 Min. + 0°C Max. 85 % Surface temperature The surface must be o		ut loss for medium dry film 80 μm ^{*)} 130 μm ~0.355 kg/m ² ~42.7 g/m ² of SikaCor [®] Zinc R Rapid		
Product Temperature Relative Air Humidity Surface Temperature Pot Life	thickness: Dry film thickness Wet film thickness Consumption VOC *) for spray application Apart from small area should not exceed 15 Min. + 0°C Max. 85 % Surface temperature The surface must be of Min 10°C At + 10°C At + 20°C	$ \begin{array}{c} 60 \ \mu\text{m} \\ 95 \ \mu\text{m} \\ \hline 0.265 \ \text{kg/m}^2 \\ \hline ~ 32.0 \ \text{g/m}^2 \end{array} $ as the dry film thickness of 0 \ \mu\text{m} \text{ per layer.} \\ shall be at least 3 K above dry and free from ice. $\begin{array}{c} \hline & \\ \hline \\ \hline \\ \hline \\ \hline \\ \hline \hline \hline \\ \hline \hline \hline \hline \\ \hline \hline \hline \hline \hline \\ \hline \hline$	ut loss for medium dry film 80 μm ^{*)} 130 μm ~0.355 kg/m ² ~42.7 g/m ² of SikaCor® Zinc R Rapid re dew point.		
Product Temperature Relative Air Humidity Surface Temperature	thickness: Dry film thickness Wet film thickness Consumption VOC *) for spray application Apart from small area should not exceed 15 Min. + 0°C Max. 85 % Surface temperature The surface must be of Min 10°C At + 10°C At + 20°C At + 30°C	60 μm 95 μm ~0.265 kg/m ² ~32.0 g/m ² as the dry film thickness of 0 μm per layer. shall be at least 3 K above dry and free from ice.	ut loss for medium dry film 80 μm ^{*)} 130 μm ~0.355 kg/m ² ~42.7 g/m ² of SikaCor® Zinc R Rapid re dew point.		
Product Temperature Relative Air Humidity Surface Temperature Pot Life	thickness: Dry film thickness Wet film thickness Consumption VOC *) for spray application Apart from small area should not exceed 15 Min. + 0°C Max. 85 % Surface temperature The surface must be of Min 10°C At + 10°C At + 20°C	$ \begin{array}{c} 60 \ \mu\text{m} \\ 95 \ \mu\text{m} \\ \hline 0.265 \ \text{kg/m^2} \\ \hline 32.0 \ \text{g/m^2} \\ \hline 33.0 \ \text{g/m^2} \\ \hline 33.0 \ \text{g/m^2} \\ \hline 33.0 \ \text{g/m^2} \\ \hline \ 33.0 \ \text{g/m^2} \\ \hline $	ut loss for medium dry film 80 μm ^{*)} 130 μm ~0.355 kg/m ² ~42.7 g/m ² of SikaCor® Zinc R Rapid re dew point.		
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Waiting Time / Overcoating	Min. until drying stage 6 is achieved Max. 1 year In case of longer waiting times please contact Sika. SikaCor® Zinc R Rapid cures also at temperatures below 0 °C. Thereby the overcoating times delay significantly and have to be determined on site. Prior to further applications possible contamination must be removed (see page 3 surface preparation).
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 depend on them and the full hardness is usually achieved after 1 - 2 weeks, depending on film thickness and ambient temperature. Tests of the com- pleted system should only be carried out after final drying.

APPLICATION INSTRUCTIONS

SURFACE PREPARATION

Steel:

Blast cleaning to Sa 2 % according to ISO 12944, part 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.

<u>By brush</u>

Conventional 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°

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CLEANING OF TOOLS

SikaCor[®] Cleaner

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.

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.

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.

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[®] Zinc R Rapid 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 enduse 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

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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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