

PRODUCT DATA SHEET

Sika® Permacor®-2311 Rapid

Epoxy zinc-rich primer for steel

Made in Germany

DESCRIPTION

Sika® Permacor®-2311 Rapid is a fast-curing 2-pack, highly pigmented zinc-rich primer of low solvent content based on epoxy resin.
Low solvent content acc. to Protective Coatings Directive of German Paint Industry Association (VdL-RL 04).

USES

Sika® Permacor®-2311 Rapid may only be used by experienced professionals.

Primer for atmospherically exposed steel surfaces – also suitable for condensation or immersion and/or steel surfaces exposed to abrasion.
In combination with 2-pack intermediate coats and topcoats Sika® Permacor®-2311 Rapid offers a mechanical resistant coating system for long-life corrosion protection with high weather resistance for rural, urban, industry and coastal atmosphere according to ISO 12944-2.

CHARACTERISTICS / ADVANTAGES

- Zinc content > 80 % in dry film
- Extraordinary mechanical resistance
- Very good water resistance

APPROVALS / CERTIFICATES

- Tested according to NORSOK Standard M-501, rev. 6, system no. 1.
- Test reports according to ISO 12944-6, corrosivity categories C4 high and C5 high are available.

PRODUCT INFORMATION

Packaging	Sika® Permacor®-2311 Rapid	22 kg net.
	Sika® Thinner E+B	25 l and 5 l
	SikaCor® Cleaner	160 l and 25 l
Appearance and colour	Grey and grey-reddish	
Shelf life	2 years	
Storage conditions	In originally sealed containers in a cool and dry environment.	
Density	~2.5 kg/l	
Solid content	~59 % by volume	
	~85 % by weight	

TECHNICAL INFORMATION

Chemical resistance	Resistant against atmospheric exposure.
Temperature resistance	Dry heat up to approx. + 180°C, short term up to + 220°C

SYSTEM INFORMATION

System	<u>Steel:</u> 1 x Sika® Permacor®-2311 Rapid Suitable topcoats: Versatile overcoatable with 2-pack protective coatings of the Sika® Permacor® series.
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APPLICATION INFORMATION

Mixing ratio	Components A : B														
	<u>By weight</u> <u>100 : 10</u>														
Thinner	Sika® Thinner E+B If necessary max. 5 % Sika® Thinner E+B may be added to adapt the viscosity.														
Consumption	Theoretical material-consumption/VOC without loss for medium dry film thickness: <table><tr><td>Dry film thickness</td><td>80 µm</td></tr><tr><td>Wet film thickness</td><td>135 µm</td></tr><tr><td>Consumption</td><td>~0.339 kg/m²</td></tr><tr><td>VOC</td><td>~50.8 g/m²</td></tr></table> Apart from small areas the dry film thickness should not exceed 150 µm per layer.	Dry film thickness	80 µm	Wet film thickness	135 µm	Consumption	~0.339 kg/m ²	VOC	~50.8 g/m ²						
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Consumption	~0.339 kg/m ²														
VOC	~50.8 g/m ²														
Material temperature	Min. + 5°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	<table><tr><td>At + 10°C</td><td>~5 h</td></tr><tr><td>At + 20°C</td><td>~2.5 h</td></tr><tr><td>At + 30°C</td><td>~1 h</td></tr></table>	At + 10°C	~5 h	At + 20°C	~2.5 h	At + 30°C	~1 h								
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Drying stage 6	<table><tr><td></td><td>Dry film thickness 80 µm</td><td>(ISO 9117-5)</td></tr><tr><td>+ 5°C after</td><td>6 h</td><td></td></tr><tr><td>+ 10°C after</td><td>4 h</td><td></td></tr><tr><td>+ 20°C after</td><td>2 h</td><td></td></tr></table>		Dry film thickness 80 µm	(ISO 9117-5)	+ 5°C after	6 h		+ 10°C after	4 h		+ 20°C after	2 h			
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Waiting time to overcoating	Min.: <table><tr><td>+ 0°C after</td><td>12 h</td></tr><tr><td>+ 5°C after</td><td>6 h</td></tr><tr><td>+ 10°C after</td><td>4 h</td></tr><tr><td>+ 15°C after</td><td>3 h</td></tr><tr><td>+ 20°C after</td><td>2 h</td></tr><tr><td>+ 25°C after</td><td>1.5 h</td></tr><tr><td>+ 30°C after</td><td>1 h</td></tr></table> Contaminations must be removed after temporary storage.	+ 0°C after	12 h	+ 5°C after	6 h	+ 10°C after	4 h	+ 15°C after	3 h	+ 20°C after	2 h	+ 25°C after	1.5 h	+ 30°C after	1 h
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+ 15°C after	3 h														
+ 20°C after	2 h														
+ 25°C after	1.5 h														
+ 30°C after	1 h														
Drying time	Final drying time Full hardness is achieved within 4 days at + 20°C.														

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.

Surface profile "medium (G)" according to ISO 8503-2, roughness R_z ≥ 50 µm.

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 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

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 or Sika® Thinner E+B

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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PRODUCT DATA SHEET

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