

## PRODUCT DATA SHEET

# SikaCor® TSG Primer

Total solids 2-pack epoxy primer

### DESCRIPTION

SikaCor® TSG Primer is a solvent-free, very fast drying, 2-pack primer, based on a modern epoxy formulation. Solvent-free according to 'CEPE statement for 'Solvent-free' Protective Coatings'.

### USES

Primer for long life corrosion protection of wind turbine steel towers (exterior and interior).

### CHARACTERISTICS / ADVANTAGES

- Solvent-free according to CEPE
- Fast curing, short overcoating time
- Excellent corrosion protection
- Especially for workshop application

### APPROVALS / CERTIFICATES

- Tested and approved according to ENERCON specification for coatings of steel towers.
- Tested acc. to ISO 12944-6, corrosivity categories C4 high and C5 high in combination with top coats.

### PRODUCT INFORMATION

<b>Packaging</b>	SikaCor® TSG Primer (A)	250 kg and 25 kg net.
	SikaCor® TSG Primer (B)	180 kg and 4 kg net.
	SikaCor® ECO Cleaner	190 l and 25 l
	Sika® Thinner E+B	190 l, 25 l and 5 l
<b>Appearance / Colour</b>	Redbrown	
<b>Shelf life</b>	1 year	
<b>Storage conditions</b>	In originally sealed containers in a cool and dry environment.	
<b>Density</b>	~1.5 kg/l	
<b>Solid content</b>	~97 % by volume	
	~98 % by weight	

### TECHNICAL INFORMATION

<b>Chemical Resistance</b>	Weathering, oils, grease and short term exposure to fuels and solvents.
<b>Temperature Resistance</b>	Dry heat up to approx. + 120°C, short term up to + 150°C.

## SYSTEM INFORMATION

<b>System</b>	<u>Steel:</u> 1 x SikaCor® TSG Primer 1 x top coat  Suitable top coats: Sika® Permacor®-2230 VHS, Sika® Permacor®-2230 VHS Rapid, Sika® Permacor®-2330 and SikaCor® EG-5
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## APPLICATION INFORMATION

<b>Mixing Ratio</b>	<b>Components A : B</b>			
	<u>By weight</u>	<u>100 : 15.7</u>		
	<u>By volume</u>	<u>3.9 : 1</u>		
<b>Thinner</b>	Sika® Thinner E+B If necessary max. 3 % Sika® Thinner E+B may be added to adapt the viscosity.			
<b>Consumption</b>	Theoretical material-consumption/VOC without loss for medium dry film thickness:			
	Dry film thickness	<u>120 µm</u>	<u>200 µm</u>	<u>240 µm</u>
	Wet film thickness	<u>124 µm</u>	<u>206 µm</u>	<u>247 µm</u>
	Consumption	<u>~0.186 kg/m<sup>2</sup></u>	<u>~0.309 kg/m<sup>2</sup></u>	<u>~0.371 kg/m<sup>2</sup></u>
	VOC	<u>~3.7 g/m<sup>2</sup></u>	<u>~6.2 g/m<sup>2</sup></u>	<u>~7.4 g/m<sup>2</sup></u>
	VOC-content	<u>~30 g/l</u>		(ISO 11890-1)
<b>Product Temperature</b>	Min. + 45°C			
<b>Relative Air Humidity</b>	Max. 85 %, except the surface temperature is significantly higher than the dew point temperature, it shall be at least 3 K above dew point.			
<b>Surface Temperature</b>	Min. + 10°C			
<b>Pot Life</b>	<u>At + 40°C</u>	<u>~10 min</u>		
<b>Drying Stage 6</b>	<b>Dry film thickness 200 µm</b> (ISO 9117-5)			
	<u>+ 10°C after</u>	<u>7 h</u>		
	<u>+ 20°C after</u>	<u>5 h</u>		
	<u>+ 30°C after</u>	<u>4 h</u>		
	Higher film thicknesses will result in longer drying times.			
<b>Waiting Time / Overcoating</b>	Min. Until drying stage 6 is achieved Max. indoors 3 months / outdoors 4 weeks In case of longer waiting times the surface must be grinded resp. sweep-blasted. Before overcoating ensure that the primed surface is dry and free from oil, grease and dirt. Temporary storage and the transport of coated parts should be carried out using appropriate methods. Securing belts or chains should not be in direct contact with the coated surface and suitable secondary packing should be employed. Do not use shrink-wrap or any other type of packaging like plastic film.			
<b>Drying time</b>	<b>Final drying time</b> At + 20°C and good ventilation the final hardness is achieved within 5 - 7 days.			

# APPLICATION INSTRUCTIONS

## SURFACE PREPARATION

### Steel:

Blast-cleaning to Sa 2 ½ according to ISO 12944-4 (ISO 8501-1).

Free from dirt, oil and grease.

Surface profile „medium (G)” according to ISO 8503-2, roughness Rz ≥ 50 µm.

For contaminated surfaces e.g. primed areas we recommend to clean with SikaCor® Wash.

## MIXING

### 2-component spraying equipment:

Preheat component A and fill the material into the tanks of the plural component spraying equipment or put the suction hoses into the material container. During application stir component A mechanically at intervals. If using plural feeded airless equipment (automatic dosage) a dosage control shall be installed to monitor correct mixing ratio. 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 will be achieved by airless or airmix spray application. Adding solvents reduces the sag resistance and the dry film thickness. 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 or roller:

- Only suitable for small areas

### Airless- and Airmix-Spraying:

- High performance plural feeded spray equipment
- Pressure min. 200 bar
- Nozzle size 0.38 - 0.53 mm (0.015 - 0.021 inch)
- Spraying angle 40° - 80°
- Due to the short pot life we recommend to use plural component spray equipment, fluid heater and heated hoses
- Information about suitable equipment upon request

## CLEANING OF EQUIPMENT

SikaCor® ECO Cleaner or Sika® Thinner E+B

# 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.

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# 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.

# 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. Further notes and information data sheets on product safety and disposal can be found on the Internet at [www.sika.de](http://www.sika.de).

## 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® TSG Primer 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 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.

