

# PRODUCT DATA SHEET

## SikaCor® Alutherm

### HEAT RESISTANT SILICONE RESIN COATING FOR STEEL

#### DESCRIPTION

SikaCor® Alutherm is a 1-pack topcoat, based on a modified silicone resin.

#### USES

SikaCor® Alutherm may only be used by experienced professionals.

High temperature and weather resistant protective coating for atmospheric corrosion protection.

For hot steel surfaces in power stations, refineries, chemical industries.

Suitable for metal chimneys, rotary kilns, steam pipes, industrial furnaces etc.

#### CHARACTERISTICS / ADVANTAGES

- Temperature resistant with primer up to + 400°C
- Temperature resistant without primer up to + 600°C

#### PRODUCT INFORMATION

<b>Packaging</b>	SikaCor® Alutherm (black)	5 kg net.	
	SikaCor® Alutherm (aluminium)	25 kg net.	
	Sika® Thinner S	25 l, 10 l and 3 l	
<b>Appearance / Colour</b>	Aluminium, approx. RAL 9006 silkglossy Black, approx. RAL 9005 mat Slight colour deviations are possible due to raw material characteristics.		
<b>Shelf life</b>	1 year		
<b>Storage conditions</b>	In originally sealed containers in a cool and dry environment.		
<b>Density</b>	SikaCor® Alutherm (black)	~1.7 kg/l	
	SikaCor® Alutherm (aluminium)	~1.3 kg/l	
<b>Solid content</b>	<b>SikaCor® Alutherm</b>	<b>By volume</b>	<b>By weight</b>
	Black	~61 %	~80 %
	Aluminium	~38 %	~60 %

## TECHNICAL INFORMATION

Chemical Resistance	The fully cured material is weather resistant.
Thermal Resistance	Dry heat up to approx. + 600°C; with zincludust primers up to max. + 400°C.

## SYSTEM INFORMATION

System	<u>Steel:</u> Up to + 400°C: 1 - 2 x SikaCor® Zinc ZS 2 - 3 x SikaCor® Alutherm black or aluminium
	<u>Up to + 500°C:</u> 2 - 3 x SikaCor® Alutherm black
	<u>Up to + 600°C:</u> 2 - 3 x SikaCor® Alutherm aluminium

## APPLICATION INFORMATION

Thinner	If necessary max. 5 % Sika Thinner S may be added to adapt the viscosity.		
Consumption	Theoretical material-consumption/VOC without loss for medium dry film thickness:		
	<b>SikaCor® Alutherm</b>	<b>Black</b>	<b>Aluminium</b>
	Dry film thickness	40 µm	40 µm
	Wet film thickness	65 µm	105 µm
	Consumption	~0.110 kg/m <sup>2</sup>	~0.135 kg/m <sup>2</sup>
VOC	~22.3 g/m <sup>2</sup>	~54.7 g/m <sup>2</sup>	
Product 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.		
Surface Temperature	Min. + 5°C		
Waiting Time / Overcoating	At + 20°C	Min. 24 h	
Drying time	<b>Drying time at + 20°C</b>		
	Dust dry after	~30 min	
	Touch dry after	~90 min	
	<b>Final drying time</b> Prior to temperature exposure min. 1 week, please avoid sudden temperature feed. <b>For final curing/reaction and for achieving of all product properties a minimum temperature of + 180°C to + 200°C over a period of 2 h is necessary.</b>		

## APPLICATION INSTRUCTIONS

### SURFACE PREPARATION

Steel:  
Blast cleaning to Sa 2 ½ acc. to ISO 12944-4.  
Free from dirt, oil and grease.

### MIXING

SikaCor® Alutherm is supplied ready for use.  
Stir thoroughly prior to application, preferable with electric stirrer.

### 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 brush and roller:

- Undiluted
- Only suitable for small areas

#### Conventional high pressure spraying:

- Nozzle size 0.8 - 1.5 mm
- Pressure 2 - 4 bar

#### Airless-spraying:

- Pressure min. 150 bar
- Nozzle size 0.33 - 0.46 mm (0.013 - 0.019 inch)
- Spraying angle 40° - 80°

#### **CLEANING OF TOOLS**

Sika® Thinner S

### **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.

### **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).

### **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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