

PRODUCT DATA SHEET

SikaCor® SW-501

EPOXY COATING WITH 100 % VOLUME SOLIDS
MECHANICALLY RESISTANT COATING FOR HYDRAULIC STEEL STRUCTURES

DESCRIPTION

Abrasion resistant, economical 2-pack coating based on epoxy resin.
Solvent free according to Protective Coatings Directive of German Paint Industry Association (VdL-RL 04).

USES

SikaCor® SW-501 may only be used by experienced professionals.
Corrosion protection for hydraulic steel structures (flood gates, steel sheet piles, etc.), where a mechanically resistant coating is required.

CHARACTERISTICS / ADVANTAGES

- Applicable in 1 layer from 200 up to 1000 microns (standard layer thickness: 500 microns)
- Tough hard, abrasion and impact resistant
- Solvent-free
- Tar-free
- Suitable for cathodic protection systems
- Norsok approval

APPROVALS / STANDARDS

- Tested and listed by the Federal Institution for Hydraulic Engineering (BAW).
- Tested according Norsok M-501, rev. 6, system no. 7A and 7B at the Teknologisk Institutt as, Oslo.
- Tested and approved by RWE Power AG.

PRODUCT INFORMATION

Packaging	SikaCor® SW-501	15 kg net.
	SikaCor® Cleaner	160 l and 25 l
Appearance / Colour	Black, redbrown, approx. RAL 7032, approx. RAL 9002 Slight colour deviations are possible due to raw material characteristics. SikaCor® SW-501 tends to chalking and yellowing if exposed to weathering. In case of higher requirements regarding colour fastness, SikaCor® EG-4 or SikaCor® EG-5 respectively are recommended as top coats.	
Shelf Life	2 years	
Storage Conditions	In originally sealed containers in a cool and dry environment.	
Density	~1.4 kg/l	
Solid Content	~100 % by volume ~100 % by weight	

TECHNICAL INFORMATION

Chemical Resistance	Resistant to industrial and marine environments, fresh-, brackish- and salt water, neutral salts, mineral oil and heating oil, grease and oils, detergents etc.
Thermal Resistance	Dry heat up to approx. + 100°C Damp heat and warm water up to approx. + 40°C For significant differential of temperature gradient please contact Sika.

SYSTEM INFORMATION

Systems	1 - 2 x SikaCor® SW-501 In case of filigree constructions an additional application is recommended. If necessary SikaCor® Zinc R can be used as primer for steel, SikaCor® EG-1 can be used as primer for hot dip galvanized or stainless steel.
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APPLICATION INFORMATION

Mixing Ratio	Components A : B	
	By weight	80 : 20
	By volume	2.5 : 1
Consumption	Theoretical material-consumption / coverage without loss for medium dry film thickness:	
	Dry film thickness	500 µm
	Wet film thickness	500 µm
	Consumption	~0.700 kg/m ²
	Consumption	~1.45 m ² /kg
Product Temperature	Min. + 20°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. Under unfavourable conditions, e.g. influence of high air humidity on the fresh coating, surface defects may occur. However, this will not effect the quality.	
Surface Temperature	Min. 0°C	
Pot Life	At + 20°C	~40 min
	At + 30°C	~20 min
Drying Stage 6	Dry film thickness 500 µm	(ISO 9117-5)
	+ 5°C after	48 h
	+ 23°C after	12 h
	+ 40°C after	3 h
	+ 80°C after	30 min
Waiting Time / Overcoating	Min. until drying stage 6 is achieved (see above) Max. 3 months In case of longer waiting times please contact Sika.	
Drying Time	Final drying time At + 20°C final curing is reached after 1 week. Material also cures under water.	

APPLICATION INSTRUCTIONS

SURFACE PREPARATION

Steel:

Blast cleaning to Sa 2 ½ according to ISO 12944-4.

Free from dirt, oil and grease.

Average roughness depth Rz ≥ 50 microns

MIXING

Stir component A 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. Material temperature should be 20-30°C after the mixing procedure. 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. 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.

Airless-spraying:

- Efficient airless equipment
- Pressure min. 180 bar
- Diameter of hoses min. 10 mm (¾ inch)
- Nozzle size 0.45 - 0.66 mm (0.021 - 0.026 inch)
- Spraying angle 40° - 80°

Depending on object conditions an adequate flow consistency can be achieved by a combination of:

- Using isolated hoses and
- Using an inline heater

By brush and roller:

- Possible on small areas or for stripe coatings.
- For large areas we recommend the use of Sika Poxicolor® SW

Do not thin SikaCor® SW-501!

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 declared data for this product may vary from country to country. Please consult the local Product Data Sheet for the exact product data.

ECOLOGY

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.

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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