

SYSTEM DATA SHEET

SikaCor® PUR System

Future name: Corothane® PUR System

1-pack polyurethane coating materials for steel

DESCRIPTION

Moisture-curing 1-pack coating materials based on polyurethane.

SikaCor® Zinc PUR:

Versatile, highly pigmented, zinc dust containing primer.

SikaCor® PUR-1:

Filled with micaceous iron oxide and is used e.g. as intermediate or travel coat.

The SikaCor® PUR System can be overcoated with the 2-pack PUR-topcoats SikaCor® EG-4 and SikaCor® EG-5.

Low solvent content referring to Protective Coatings Directive of German Paint Industry Association (VdL-RL 04).

USES

SikaCor® PUR System may only be used by experienced professionals.

Corrosion protection for steel structures and galvanized steel in aggressive atmosphere, e.g. marine and industrial climate.

CHARACTERISTICS / ADVANTAGES

- Fast curing
- Tough-elastic and solid, non-brittle
- Applicable even under difficult application conditions, for example at low temperatures and / or high air humidity
- Very good corrosion protection

APPROVALS / CERTIFICATES

- SikaCor® Zinc PUR and SikaCor® PUR-1 are approved according to German Standard 'TL/TP-KOR-Stahlbauten, Blatt 89`.

PRODUCT INFORMATION

Packaging	SikaCor® Zinc PUR	30 kg net.
	SikaCor® PUR-1	18 kg net.
	SikaCor® EG-4	30 kg, 12.5 kg and 3 kg*) net.
	SikaCor® EG-5	30 kg, 10 kg and 3 kg*) net.
	Sika® Thinner S	25 l, 10 l and 3 l
	Sika® Thinner EG	25 l, 10 l and 3 l

*) Purchase of individual 3 kg containers in variety of colours is possible through specialized retailers

Appearance and colour	Colour	Mat. -No.
SikaCor® Zinc PUR	Zinc grey, reddish	689.04
	Grey, approx.	
SikaCor® PUR-1	DB 702/DB 703	689.12/13
SikaCor® EG-4	DB-colour shades	687.30-687.74
SikaCor® EG-5	RAL-colour shades	687.75-687.99

Others on request.

Slight colour deviations are possible due to raw material characteristics.

Shelf life	6 months 2 years for SikaCor® EG-4 and SikaCor® EG-5
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Storage conditions	In originally sealed containers in a cool and dry environment.
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Density	SikaCor® Zinc PUR	~2.8 kg/l
	SikaCor® PUR-1	~1.6 kg/l
	SikaCor® EG-4	~1.4 kg/l
	SikaCor® EG-5	~1.3 kg/l

Solid content		~65 % by volume
	SikaCor® Zinc PUR	~89 % by weight
		~58 % by volume
	SikaCor® PUR-1	~78 % by weight
		~55 % by volume
	SikaCor® EG-4	~70 % by weight
	~59 % by volume	
SikaCor® EG-5	~72 % by weight	

TECHNICAL INFORMATION

Chemical resistance	Industrial and marine atmosphere, water, sewage, sea water, oil, grease, drew salts.
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Temperature resistance	Dry heat up to + 150°C, short term up to max. + 180°C Damp heat up to + 60°C An exposure to high temperatures can lead to color changes.
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SYSTEM INFORMATION

System	Steel 1 x SikaCor® Zinc PUR 1 - 2 x SikaCor® PUR-1 1 x SikaCor® EG-4 or SikaCor® EG-5
	Hot dip galvanized steel 1 x SikaCor® PUR-1 1 x SikaCor® EG-4 or SikaCor® EG-5
	When applying SikaCor® EG-5 in light colour shades a 2 nd top coat may become necessary in order to achieve a perfect opacity.

APPLICATION INFORMATION

Thinner	Sika® Thinner S 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: SikaCor® Zinc PUR ¹ Dry film thickness 80 µm Wet film thickness 125 µm Consumption 0.345 kg/m ² VOC 38 g/m ² SikaCor® PUR-1 ¹ Dry film thickness 80 µm Wet film thickness 140 µm Consumption 0.220 kg/m ² VOC 49 g/m ² SikaCor® EG-4 Dry film thickness 80 µm Wet film thickness 145 µm Consumption 0.205 kg/m ² VOC 61 g/m ² SikaCor® EG-5 Dry film thickness 60 µm 80 µm Wet film thickness 100 µm 130 µm Consumption ~0.130 kg/m ² ~0.170 kg/m ² VOC 33 g/m ² 44 g/m ² ¹ Apart from small areas the dry film thickness of 150 µm of SikaCor® Zinc PUR and 180 µm of SikaCor® PUR-1 should not be exceeded per application.
Material temperature	Min. + 5°C
Relative air humidity	Min. 30 %, max. 98 %, surface temperature shall be at least 3 K above dew point. The surface must be dry and free from ice.
Surface temperature	Min. 0°C
Waiting time to overcoating	<u>Between primer coat and intermediate coat (at + 20°C):</u> Min. 4 h Max. 3 months In case of longer waiting times please contact us.
Drying time	Final drying time Depending on layer thickness and temperature final hardness is achieved within several days.

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.

Hot dip galvanized steel, stainless steel and aluminium:

Free from dirt, oil, grease and corrosion products.
In case of permanent immersion and condensation the surfaces must be slightly sweep blasted with a ferrite-free blasting abrasive.

For contaminated and weathered surface e.g. galvanized and primed areas we recommend to clean with SikaCor® Wash.

MIXING

All materials are supplied ready for use; stir thoroughly prior to application.

Attention, risk of injuries! Container may be under pressure. Lid may come off unexpectedly. Prior to opening reduce pressure, e.g. by piercing the lid.

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

SikaCor® Zinc PUR is not suitable for roller application.

Conventional high pressure spraying:

- Nozzle size 1.5 - 2.5 mm
- Pressure 3 - 5 bar

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

For SikaCor® Zinc PUR

and for SikaCor® PUR-1 Sika® Thinner S

For SikaCor® EG-4

and for SikaCor® EG-5 Sika® Thinner EG

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 Sherwin-Williams` products, are given in good faith based on Sherwin-Williams` current knowledge and experience of the products when properly stored, handled and applied under normal conditions in accordance with Sherwin-Williams` 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. Sherwin-Williams 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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