BUILDING TRUST

PRODUCT DATA SHEET

Sika® Permacor®-2230 VHS

VERY HIGH SOLID 2-PACK-ACRYLIC-POLYURETHANE TOPCOAT

DESCRIPTION

Sika® Permacor®-2230 VHS is a 2-pack acrylic-polyurethane topcoat, with extremely low solvent content and with very good optical and mechanical properties. Low solvent content acc. to Protective Coatings Directive of German Paint Industry Association (VdL-RL 04).

USES

Sika® Permacor®-2230 VHS may only be used by experienced professionals.
Sika® Permacor®-2230 VHS is used as mechanically resistant top coat for atmospheric exposed steel surfaces, e.g. bridges, pipelines, industrial and harbour installations, tanks, wind power stations as well as sewage treatment plants and steel structures in common.
Together in combination with 2-pack primers and intermediate coats of SikaCor® and Sika® Permacor® results in mechanically resistant coating systems for long life corrosion protection with extremely high weather resistance up to corrosivity category C5 high, acc. to ISO 12944-2.

CHARACTERISTICS / ADVANTAGES

- Excellent weather resistance due to high gloss and colour retention
- Fast curing characteristics, short recoating time
- Economical due to high volume solids
- VOC-value of approx. 250 g/l

APPROVALS / STANDARDS

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

PRODUCT INFORMATION

Packaging	Sika® Permacor®-2230 VHS	25 kg and 10 kg net.
	Sika® Thinner P	25 l and 5 l
Appearance / Colour	RAL, NCS, others on request.	
Shelf Life	2 years	
Storage Conditions	In originally sealed containers in a cool and dry environment.	
Density	~1.4 kg/l	
Solid Content	~70 % by volume ~82 % by weight	

TECHNICAL INFORMATION

Chemical Resistance

Water, sea water, sewage,diluted inorganic acids and lyes, salt, detergents, grease, oil and for short term contact to solvents and gasoline.

Thermal Resistance

Dry heat up to approx. + 120°C, short term up to + 150°C
Damp heat up to approx. + 50°C

SYSTEM INFORMATION

Systems

Steel:
As a topcoat on the following primers and intermediate coats:
Sika® Permacor®-2204 VHS
Sika® Permacor®-2215 EG VHS
SikaCor®-6205 VHS Turbo, SikaCor® EG-1 and SikaCor® EG-1 VHS

1 x Sika Poxicolor® Primer HE NEW or SikaCor® Zinc R
1 x SikaCor® EG-1 VHS
1 x Sika® Permacor®-2230 VHS

Hot dip galvanized steel, stainless steel and aluminium:
1 x SikaCor® EG-1 or SikaCor® EG-1 VHS
1 x Sika® Permacor®-2230 VHS

In case of exposure to permanent condensation use SikaCor® Zinc R or Sika® Permacor®-2311 Rapid as primer.

APPLICATION INFORMATION

Mixing Ratio

	Components A : B
By weight	100 : 18
By volume	3.8 : 1

Thinner

Sika® Thinner P
If necessary max. 5 % Sika® Thinner P may be added to adapt the viscosity.

Consumption

Theoretical material-consumption/VOC without loss for medium dry film thickness:

Dry film thickness	80 µm
Wet film thickness	115 µm
Consumption	~0.160 kg/m²
VOC	~28.8 g/m²

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
0°C when accelerated with SikaCor® PUR Accelerator.

Pot Life

At + 10°C	~4 h
At + 20°C	~2 h
At + 30°C	~1 h

Drying Stage 6

	Dry film thickness 80 µm
+ 5°C after	20 h
+ 15°C after	10 h
+ 20°C after	6 h
+ 30°C after	3 h

(ISO 9117-5)

Waiting Time / Overcoating	Min.:

	Dry film thickness 80 µm
+ 5°C after	~18 h
+ 15°C after	~9 h
+ 20°C after	~5 h
+ 30°C after	~2 h

Max.: unlimited

Prior to further applications possible contamination must be removed (see page 3 'surface preparation').

Drying Time	**Final drying time** Depending on film thickness and temperature full hardness is achieved after 1 - 2 weeks.

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

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

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 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 or roller

Airmix-Spraying

Airless-spraying:
- Pressure min. 150 bar
- Nozzle size 0.38 - 0.53 mm (0.015 - 0.021 inch)
- Spraying angle 40° - 80°

CLEANING OF TOOLS

Sika® Thinner P

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.

GISCODE: PU 50

This coding enables additional information and help with the creation of operating instructions (WINGIS online) to be obtained on the BG Bau service pages (www.gisbau.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 Sika® Permacor®-2230 VHS 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.

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