

# PRODUCT DATA SHEET

# Sika® Poxitar® F

# EPOXY-ANTHRACENE OIL-COMBINATION HEAVY DUTY COATING FOR STEEL AND CONCRETE

## **DESCRIPTION**

Resistant 2-pack coating of low solvent content based on an epoxy-anthracene oil-combination with mineral fillers

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

## **USES**

Sika® Poxitar® F may only be used by experienced professionals.

Protective coating for concrete and steel, for buried and submerged structures, e.g. sewage systems, chemical industry etc.

Also suitable where application onto damp concrete is inevitable.

Not suitable for surfaces in contact with drinking water, housing, stables etc.

# **CHARACTERISTICS / ADVANTAGES**

After complete curing Sika® Poxitar® F is:

- Tough hard, heavy duty
- Abrasion and impact resistant
- Excellent resistance to water and chemicals

Sika® Poxitar® F can be exposed to water immediately after application. But take into consideration that solvents get into the water which leads to temporary contamination. Immediate exposure to water should therefore only be considered in special cases and after consulting the authorities for the protection of environment.

## **APPROVALS / STANDARDS**

Coating based on epoxy resin for concrete protection according to EN 1504-2:2004, DOP, with CEmark

## PRODUCT INFORMATION

| Packaging           | Sika® Poxitar® F   | 35 kg              |  |
|---------------------|--|--------------------|--|
|                     | Sika® Thinner S  | 25 L, 10 L and 3 L |  |
|                     | SikaCor® Cleaner   | 25 L               |  |
| Appearance / Colour | Black  |                    |  |
|                     | Tinted red   |                    |  |
| Shelf Life          | 1 year   |                    |  |
| Storage Conditions  | In originally sealed containers in a cool and dry environment. |                    |  |
| Density             | ~ 1.8 kg/litre   |                    |  |
| Solid Content       | ~ 87 % by volume   |                    |  |
|                     | ~ 96 % by weight   |                    |  |

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# **TECHNICAL INFORMATION**

| Chemical Resistance | Resistant to water, seawater, barnacles, diluted acids and lyes, neutral salts, mineral and fuel oils, grease, detergents etc.  Not resistant to exposure to benzene-hydrocarbons and tar oil.            |
|---------------------|---|
| Thermal Resistance  | Dry heat up to approx. +100 °C  Damp heat and warm water up to approx. +60 °C  Short term exposure up to approx. +80 °C  Not resistant to warm water at significant differential of temperature gradient! |

# **SYSTEM INFORMATION**

| Systems | Concrete:  2–3 x Sika® Poxitar® F  1 <sup>st</sup> coat to be thinned with max. 5 % by weight Sika® Thinner S,  2 <sup>nd</sup> coat unthinned.          |  |
|---------|--|--|
|         | Steel:  2–3 x Sika® Poxitar® F  Preferably alternating colour shades.  In case of heavy mechanical exposure priming with SikaCor® Zinc R is recommended. |  |

# **APPLICATION INFORMATION**

| Mixing Ratio          |  | Components A: B         |  |
|-----------------------|--|-------------------------|--|
|                       | By weight  | 85:15                   |  |
| Thinner               | Sika® Thinner S, only thin material where stated.  If necessary max. 5 % Sika® Thinner S may be added to adapt the viscosity.  In this case an immediate exposure to water is not possible.  If necessary the material components can be tempered. |                         |  |
| Consumption           | Theoretical material-consumption/coverage without loss for medium dry film thickness of:   |                         |  |
|                       | Dry film thicknes  | 150 μm                  |  |
|                       | Wet film thickness   | 175 μm                  |  |
|                       | Consumption  | 0.310 kg/m <sup>2</sup> |  |
|                       | Consumption  | 3.25 m <sup>2</sup> /kg |  |
| 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.  |                         |  |
|                       | Under unfavourable conditions, e.g. influence of high air humidity into the fresh coating, surface damages (brown discolouration) and possibly little alligatoring may occur. However, this will not affect the quality.                           |                         |  |
| Surface Temperature   | Min. + 5 °C  |                         |  |
| Pot Life              | At +20 °C  | ~ 1.5 h                 |  |



#### Waiting Time / Overcoating

Waiting time between operations up to max. 150  $\mu m$  dry film thickness:

|                 | Waiting time | Waiting time |
|-----------------|--------------|--------------|
|                 | min.         | max.         |
| At +5 °C after  | 36 h         | 96 h         |
| At +10 °C after | 30 h         | 72 h         |
| At +15 °C after | 24 h         | 60 h         |
| At +20 °C after | 12 h         | 48 h         |
| At +25 °C after | 8 h          | 36 h         |
| At +30 °C after | 6 h          | 24 h         |

If these maximum waiting times cannot be observed, the surface must be activated by sweep blasting to avoid intercoat adhesion problems. Prior to application of the next coat a thorough dedusting is necessary.

Between SikaCor® Zinc R and Sika® Poxitar® F: 24 h at + 20 °C (see product data sheet).

#### **Drying Time**

#### Final drying time

At +20  $^{\circ}$ C and good ventilation final curing is achieved after approx. 8–10 days.

Curing also takes place at lower temperatures – below +10  $^{\circ}$ C – but it takes longer.

Curing also takes place under water.

### **APPLICATION INSTRUCTIONS**

#### SUBSTRATE PREPARATION

#### Concrete:

Solid and gripping, free of cement laitance, dust, loose and friable particles and other contamination. Concrete moisture content max. 8 %. Sweep blasting increases adhesion. This is particularly important in case of underwater exposure. Large holes, holidays and cavities etc. should be levelled up with e.g. Icoment®-520 Mortar or Sika Poxitar® SW Mortar.

#### **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 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 and roller

#### Airless-spraying:

- Pressure min. 150 bar
- Diameter of hoses min. 10 mm (% inch)
- Nozzle size 0.53-0.66 mm (0.021 0.026 inch)
- Spraying angle 40°–80°

#### **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 performance of this product may vary from country to country. Please consult the local Product Data Sheet for the exact description of the application fields.



# **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 Material Safety Data Sheet (MSDS) containing physical, ecological, toxicological and other safety-related data.

Skin contact with epoxy resins can lead to allergies! Avoid direct skin contact at all costs when handling epoxy resins!

#### **VOC DATA**

VOC content (ready to use) not exceeding 250 gm/litre [Type of regulated paint under the Air Pollution Control (volatile organic compounds) Regulation of Hong Kong: (industrial maintenance coatings)].

#### **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. It may be necessary to adapt the above disclaimer to specific local laws and regulations. Any changes to this disclaimer may only be implemented with permission of Sika® Corporate Legal in Baar.

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