Technical Data Sheet

AB-COR® 928 A

2-C-EP-coating for steel constructions

Description:

2-component epoxy coating with **ABP - bionic corrosion inhibitor**
VOC < 2 %, free of benzyl alcohol and nonylphenol

Characteristics:

- electrically conductive
- excellent corrosion protection
- airless sprayable
- thixotropic
- high chemical resistance
- good thermal resistance
- very good adhesion strength
- suitable for single layer application
- inert and harmless once cured

Application:

AB-COR 928 A is designed for use as high performance chemical and abrasion resistant coating and offers excellent anticorrosion properties combined with good resistance to aggressive, flammable and non-flammable liquids and chemicals.

AB-COR 928 A must be applied by using airless spray equipment (with a flow heater) and is suitable as an electrically conductive lining of steel tanks, containers and pipes at the chemical industry.

Layer thickness:

approx. 750 microns DFT; maximum layer thickness approx. 1000 microns – minimum 500 microns
volume resistance ≤ 10^8 Ω

Consumption:

theoretical: approx. 1.1 kg/m² (at 750 microns DFT)
practical: approx. 1.5 kg/m² (at 750 microns DFT)

The information relating to practical consumption / coverage is calculated to include 30 % loss.
The practical consumption / coverage depends on the conditions of the substrate. We recommend to apply a test area.

Resistant to:

- crude oil, mineral oil
- water, seawater, brackish water, waste water
- oil, fat, lubricants and fuels
- wet heat max. +90°C (please consult us!)
- non-oxidising, diluted acids
- alkalis, lyes
- dry heat max. +150°C

Technical Data:

Mixing ratio A : B	100 : 12.5 by weight (8 : 1)
Density (23°C)	approx. 1.40 g/cm³
Volume solids	approx. 100 %
Viscosity (23°C)	approx. 2700 mPa·s ± 500
Electrical resistance	max. 1 x 10^8 Ω

Details for application:

Pot life (10°C / 23°C / 30°C)	approx. 30 minutes / 20 minutes / 15 minutes
Substrate temperature	minimum 10°C up to maximum 40°C
Material temperature (flow heater)	25°C - 40°C
Maximum relative humidity of air	85 %
Dew point - substrate temperature	minimum +3°C above dew point
Duration to overcoat with itself (in case of longer duration time the surface must be prepared by blasting)	23°C: max. 8 hours
Curing time / foot traffic (10°C / 23°C / 30°C)	24 hours / 12 hours / 6 hours
Curing time / mech. resistance (10°C / 23°C / 30°C)	72 hours / 48 hours / 24 hours
Curing time / chem. resistance (10°C / 23°C / 30°C)	7 days / 5 days / 3 days
All above values are approximate and may be used as a guideline for specifications	

Clean up machine:

To clean and flush the spray equipment / machine we recommend to use **AB-COR 999** - cleaner with a temperature of approx. 30 - 40°C.

Packaging:

16 kg - pails (14.2 kg component A + 1.8 kg component B), other pails are available on request

Colour:

anthracite grey
- due to raw material variations and manufacturing techniques, a slight colour / batch difference may occur -

Storage:

12 months, unopened in original drums under dry conditions and a temperature of 15 - 25°C. At temperatures < 10°C crystallisation is possible. Please consult us.

Surface preparation:
The steel surface that is to be coated must be dry and free of mill scale, debris, grease, fat, oil, dust, areas of corrosion / rust as well as other contaminants which may impair the adhesion (see DIN report 28 “corrosion protection for steel constructions by using coating systems – testing the surface regarding to invisible contaminants before application”). Welding beads must be removed, welding seams and welding overlaps must be smooth in accordance with DIN EN 14879-1. Surface preparation by blast cleaning (with tough grit) in accordance with DIN EN 12944-4 (ISO 8501-1/-2), preparation grade Sa 2½. Use only approved blasting abrasives with angular grain. Average roughness R_{Y5} (R_Z) ≥ 50 microns respectively „middle (G)“ in accordance with DIN EN ISO 8503-2 (ISO 8503-2). Prior to, during and after surface preparation, application and curing the substrate temperature must be minimum +3°C / 3K above the dew point (see dew point table). In case of doubt the surface cleanliness must be measured regarding soluble contaminants in accordance with EN ISO 8502-6 (Bresle method) and EN ISO 8502-9 prior to coating.

Preparation of material:
Airless spray resp. brush / roller: The temperature of the components must be at least 25°C. Stir the components thoroughly and mix in the correct ratio using a suitable low speed electric mixer (300 - 400 rpm) for at least 3 minutes or until a completely homogeneous mixture has been achieved. Put the mixed material into a clean container and mix again for at least 1 minute more.

Application method (use without thinner!)**:**

Airless spray	**Brush / roller**
Efficient airless spray equipment, e. g. Graco King Xtreme Pressure ratio: minimum 1 : 68 Spray hose: approx. 20 m ⅜“ + 2 m ¼“ Inlet pressure: 6 - 8 bar Nozzle size: 0.43 - 0.48 mm Spraying angle: 40 - 70° Flow heater: 25 - 40°C We recommend to remove the high pressure filters and to pump the material directly without a siphon tube. **N/B:** To facilitate spray application it is necessary to use insulated hoses and a flow heater (particularly at low temperatures).	Recommended for small areas, repairs or to precoat edges, only. Minor defects and faults can be repaired by hand using the same material. Prior to application the surface must be prepared by grinding or blasting PSa 2 ½ and cleaning. For minor repairs, use a brush and apply **AB-COR 928 A**.

The a. m. information are recommendations only and may be adjusted depending on the conditions of the object.

Resistance:

Mechanical	**Thermal**	**Chemical** (selection)
• impact resistant • high abrasion resistant	• dry heat max. +150°C • wet heat max. +90°C	Mineral oil, solvents • crude oil, diesel / biodiesel, petrol / premium gasoline • white spirit, toluene, xylene, ethylene glycol Salt solutions • $CaCl_2$ (saturated), NaCl (saturated) • KCl (saturated), $FeCl_3$ (42 %) For further information about the chemical resistance, please consult us!

Due to the fact that the resistance of the coating can be affected by various factors (medium, temperature, concentration, layer thickness, etc.) we recommend to consult us prior to application.

Health and safety:
GISCODE: RE30
While **AB-COR 928 A** is a (nearly) solvent free coating, it is common practice when used as a tank lining or in enclosed areas to circulate the air during and after the application until the coating is cured. The ventilation system should be capable of preventing any solvent vapour concentration from reaching the lower explosion limit for any solvents that may be present. Avoid inhalation of the vapours. Wear suitable protective clothing, gloves, eye / face protection and suitable respiratory equipment. Adequate ventilation of the working areas is recommended. After contact with skin, wash immediately with plenty of water and soap. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. When using do not eat, drink, smoke and keep away from sources of ignition. For additional references to safety-hazard warnings, regulations regarding the transport and waste management please refer to the relevant Safety Data Sheet.

AB-Polymerchemie GmbH
Tjüchkampstraße 21 - 24
D - 26605 Aurich
Tel.: +49 (0)4941 - 604360
Fax.: +49 (0)4941 - 6043643
info@ab-polymerchemie.de
www.ab-polymerchemie.de