

Technical Data Sheet



AB-COR® 955 SW

2-C-EP-corrosion protection coating
for hydraulic steel engineering

Description:

2-component epoxy coating with **ABP - bionic technology**
VOC < 1 %, free of heavy metals, benzyl alcohol, coal tar, anthracene oil and plasticizers

Characteristics:

- approved by the BAW
- excellent corrosion protection
- very high abrasion resistance
- high tolerance to early water stress
- excellent surface gloss (even at high relative humidity)
- excellent adhesion strength
- no shrinkage by migration of plasticizer
- inert and harmless once cured

Application:

AB-COR 955 SW is a high abrasion resistant, economical coating which is especially suitable as corrosion protection of steel constructions for hydraulic engineering, e.g. flood gates, steel sheet piles and weir plants. **AB-COR 955 SW** is used as highly mechanical and chemical resistant / hard-wearing coating that offers excellent anticorrosion properties. **AB-COR 955 SW** must be applied by using airless spray equipment (with a flow heater if required) and is suitable for application in two coats; high build application in one coat is also possible. Due to the special formulation a primer is not required. In case of need (tender) it is possible to apply an epoxy zinc primer. For manual application we offer the specific formulation **AB-COR 955 SW-H** (optimized quality for application by hand).

Layer thickness:

approx. 500 - 1200 microns / depending on the object and application;
minimum 2 x 250 - 300 microns (a non-porous application must be ensured)

Consumption:

theoretical: approx. 1 kg/m² at 600 microns DFT
practical: approx. 1.4 kg/m² at 600 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:

- industrial and marine conditions
- water, seawater, brackish water
- mineral oil, aliphatic hydrocarbons
- wet heat up to +50°C (please consult us)
- neutral salt solutions
- diluted acids
- oil, fat, lubricants and fuels
- dry heat up to +100°C

Technical Data:

Mixing ratio A : B	7 : 1 by weight resp. 4 : 1 by volume
Density (23°C)	approx. 1.65 g/cm ³
Volume solids	approx. 100 %
Viscosity (23°C)	approx. 3500 mPa·s ± 500

Details for application:

Pot life (20°C / 23°C / 30°C)	approx. 35 minutes / 30 minutes / 20 minutes
Substrate temperature	minimum 10°C up to maximum 40°C
Material temperature (flow heater if required)	20°C - 30°C
Maximum relative humidity of air	85 %
Dew point - substrate temperature	minimum +3°C above dew point
Duration to overcoat with itself „wet to wet“ approx. after 15 minutes (with regard to the maximum layer thickness)	10°C: 12 - 48 hours max. 3 months* 23°C: 6 - 48 hours max. 3 months* 30°C: 3 - 24 hours max. 3 months* *see note / overcoat
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 kg component A + 2 kg component B), other pails are available on request

Colour:

black, red brown, silk grey (other colours are available on request)
- 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_{Vs} (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 20°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. 30 m $\frac{3}{8}$ " + 2 m $\frac{1}{4}$ " Inlet pressure: 3 - 5 bar Nozzle size: 0.43 - 0.64 mm (0.017" up to 0.025") Spraying angle: 30 - 80° We recommend to remove the high pressure filters and to pump the material directly without a siphon tube.	Recommended for small areas, repairs or to precoat edges, only. Repeat the coats until sufficient film thickness is obtained. Normally a film thickness of 250 - 300 microns per coat can be obtained by this method. For increased visual demands the optimized for manual application version AB-COR 955 SW-H is available.

Attention! To ensure a proper application at low temperatures a hose insulation and a flow heater have to be used.

N/B: At low temperatures it is necessary to use insulated hoses and a flow heater! Please use a plural component airless spray equipment, if a longer spray hose distance (> 30 m) and an independent application time / pot life is required.

If required, a primer layer with an epoxy zinc primer can be applied.

In exposure to weathering, **AB-COR 955 SW** tends to chalking and discolouring. In case of higher demand, we recommend to use **AB-PUR 720** or an **AB-COR** - topcoat (1 - 2 x).

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

Resistance:

Mechanical	Thermal	Chemical
<ul style="list-style-type: none">• impact resistant• high abrasion resistant	<ul style="list-style-type: none">• dry heat up to +100°C continuously, short-term up to +150°C• wet heat up to +50°C continuously, short-term up to +70°C	<ul style="list-style-type: none">• industrial and marine conditions• water, seawater, brackish water• oil, fat, lubricants and fuels• diluted acids, alkalis• neutral salt solutions

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.

***Note / overcoat:** 3 months have been realised at the laboratory. Surfaces which have been exposed to weathering must be prepared by qualified equipment. Please consult us!

Health and safety:

GISCODE: RE30

While **AB-COR 955 SW** is a (nearly) solvent free coating, it is common practice when used 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-COR 955 SW; 2.01/18.10.21. Before use, please check that this is the actual edition of the Technical Data Sheet. The information contained in this Technical Data Sheet is of a general nature and is provided in good faith and we accept no liability for errors or omissions. Because use and application of this product are out of our control and depend, concerning substrate, load and method of application, on the particularities of the individual case, our advice, verbal, written or based on tests, does not exempt the applicator from testing the suitability of the products for the intended use.

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