

## Description

**AB-COR 950 SW** is a two component, 100% solids, highly abrasion resistant epoxy coating designed for corrosion control. AB-COR 950 SW uses bionic technology adapted from the adhesion techniques of the gecko and the sea mussel to apply a tight bonding, hydrophobic, highly cross-linked polymer network to steel surfaces. AB-COR 950 SW is also used as a

highly mechanical and chemical resistant, hard wearing coating that offers excellent anti-corrosion properties. AB-COR 950 SW is resistant to crude oil, mineral oil, water, seawater, brackish water, neutral salt solutions, diluted acids, oil, fat, lubricants, fuels, wet temperatures up to 195° F and dry heat up to 275° F. AB-COR 950 SW must be applied with airless

spray equipment, flow heaters and heated hoses and is suitable for high build application in one coat (multiple coats also possible). Due to this unique formulation, a primer is not required and the coating will not shrink, nor sponsor plasticizer migration.

## Characteristics

**AB-COR 950 SW** is an incredibly stable coating that has excellent chemical, thermal and mechanical resistance. It is especially suitable for corrosion protection of steel structures and construction in hydraulic applications such as: flood gates, steel sheet piles, water tanks, water treatment plants, bridges, and in the shipping

industry.

*The information contained in this Technical Data Sheet is of general nature and is provided in good faith. We accept no liability for errors or omissions. Because use and application of this product are out of our control and is dependent on*

*substrate load (possible contaminates), methods of preparation and application parameters as well as particularities of the individual case. Our advise, verbal written or based on tests, does not exempt the applicator from testing the suitability of the products for the intended use.*

## Features

- **Zero VOC Emissions / Solvent Free**

- **Advanced Bionic Technology**

- **True Single Coat System**

(No Primer Needed)

- **Excellent Adhesion Strength**

- **Withstands up to 195°F Wet**

- **Withstands up to 275°F Dry**

- **High Chemical, Mechanical & Thermal Resistance**

- **High Abrasion Resistance**

- **No Corrosion Migration**

- **No Plasticizer Migration**

## Technical Data

Mixing Ratio (A:B)	<b>10:1 (by Weight), 6:1 (by Volume)</b>
Density (75° F)	<b>1.60 g/cm<sup>3</sup></b>
Volume Solids	<b>100%</b>

## Resistance

Mechanical	Thermal	Chemical
• <b>Impact Resistant</b>	• <b>Dry:</b> long-term: < 210° F short-term: < 300° F	• <b>Industrial &amp; Marine Conditions</b>
• <b>High Abrasion Resistance</b>	• <b>Wet:</b> long term: < 120° F short-term: < 195° F	• <b>Seawater, Brackish Water</b>
• <b>Excellent Hardness</b>		• <b>Oil, Fat, Lubricants, Fuels</b>
		• <b>Diluted Acids, Alkalis</b>

*Please consult AC Tech technical staff when chemicals are not listed or temperatures exceed these limits.*

## Details for Application

Pot Life (50° / 75° / 90° F)	<b>40 Minutes / 30 Minutes / 20 Minutes</b>
Substrate Temperature	<b>50 - 100° F</b>
Material Temperature	<b>70 - 100° F</b>
Max. Relative Humidity (Ambient)	<b>85%</b>
Application Humidity Dew Point	<b>+5° F (Steady and Rising)</b>
Application Thickness	<b>25 - 45 mil (DFT)</b>
Re-coat Time (50° / 75° / 90° F)	<b>7 - 48 Hours / 4 - 24 Hours / 2 - 12 Hours *</b>
Cure Time / Foot Traffic (50° / 75° / 90° F)	<b>24 Hours / 12 Hours / 6 Hours</b>
Cure Time / Mech. Resistance (50° / 75° / 90° F)	<b>72 Hours / 48 Hours / 24 Hours</b>
Cure Time / Chem. Resistance (50° / 75° / 90° F)	<b>7 Days / 5 Days / 3 Days</b>

*\* maximum time before re-coat is 3 months*

## Coverage Rates

Type	Spread Rate	Dry Film Thickness
Practical	~ 40 sq. ft. / gallon	25 mil
Theoretical	~ 55 sq. ft. / gallon	25 mil

*All above values are approximate and may be used as guidelines for specifications. Spread rates, thickness, cure times and resistance values are approximate and dependent upon the surface of application, ambient temperature and humidity conditions of the job site as well as the concentration and layer thickness of material. The practical coverage rates are calculated to include 30% loss due to spray loss. Consult AC Tech Technical staff if you are unfamiliar with this product and application.*

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# AB-COR 950 SW

## Bionic Corrosion Protection Coating

### 1. Surface Preparation

The substrate that is to be coated with AB-COR 950 SW 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. Welding beads must be removed, welding seams and welding overlaps must be smooth in accordance with DIN EN ISO 8501-1, preparation grade Sa 2.5. Use only approved blasting abrasives with angular grain. Average roughness RY5 (RZ) ≥ 50 microns ( respectively "middle (G)" ) in accordance to DIN EN ISO 12944-4 or DIN EN ISO 8503-2.

Surface preparation by sand-blasting (with appropriate angular aggregate) should be done in accordance to ASTM D7127-05, preparation grade NACE No. 2 / SSPC-SP10. Use only approved blasting abrasives with angular grain. Average R<sub>v5</sub> (R<sub>z</sub>) ≥ 2 mil (respectively "middle (g)") in accordance with ASTM D7127-05 or ASTM D4417 (1.5m).

Prior to, during and after surface preparation, application and curing of AB-COR 950 SW, the substrate temperature must be at least +5°F above the dew point.

To ensure proper surface preparation and cleanliness, testing for soluble contaminants should be conducted in accordance with ASTM D4940 (Bresle method) and EN ISO 8502-9 (salt strip sensor, Jenway or Jenco) prior to coating.

### 2. Application Instructions

AB-COR 950 SW-N can be applied with an airless sprayer (e.g. Graco King Xtreme) or a brush and/or roller (**only for small areas, repairs or to pre-coat edges**). When applying with an airless sprayer, ensure the pressure ratio is at least 1:68. Spray hose must be approximately 65 ft. (3/8" diameter) + 7 ft. (1/4" diameter). Inlet pressure must be between 60 - 100 PSI, with a nozzle site of .017 - .025". Spray angle must be between 30 - 80°. The Flow heater should be set between 65 to 95° F.

High pressure filters should be removed and material should be pumped directly without the use of a siphon tube. At low temperatures, insulated hoses and a flow heater must be used to ensure proper flow and application.

If necessary, the AB-COR 904 primer can be applied for added adhesion or protection. When exposed to sustained UV rays, adverse weather conditions or harsh chemicals for long periods of time, the surface of the AB-COR 950 SW may chalk or discolor. For additional protection or for a self-cleaning surface, the AB-COR 971 top coat can be applied. For more information about these products, please see the related technical data sheet or consult AC Tech technical staff.

Prior to mixing, the temperature of both components must be between 68° - 95° F. Open both cans. Premix part A for ~30 seconds, then pour in part B and mix for 3 minutes using a 400 RPM drill and a Jiffy mixer type paddle. Once mixed, pour material into a clean container and mix again for at least 1 minute.

### 3. Applying to Concrete

When applying to a concrete substrate: prepare surface to an ICR CSP 3 or 4 profile using appropriate surface preparation equipment. The concrete must be free of all laitance, dust, grease, oil, fat, curing compounds, and other contaminants. Test substrate accordingly per ASTM F-710. When applying to concrete substrate vapor testing is recommended prior to application using

ASTM F 1879 or ASTM F 2170. If moisture testing protocols exceeds 75% RH (ASTM F 2170) or 3 lbs / 1000 sq. ft. / 24 hrs (ASTM F 1869) , apply the AC-Tech 2170® moisture reduction system at the appropriate spread rate. Please see AC Tech 2170® technical data sheet for further information.

Contact AC Tech technical staff if there are any questions about this procedure.

### 4. Chemical Resistance

Contact AC Tech technical staff for the specified chemical resistance of the AB-COR 950 SW product prior to application.

### 5. Packaging

<u>2.8 Gallon unit</u>
2.4 Gallon Part A
0.4 Gallon Part B

### 6. Health and Safety

Always review product MSDS before handling product and obtain appropriate PPE and handling equipment. Do not expose skin, eyes or ingest mixed or unmixed AB-COR 950 SW. When dealing with ingestion, note product CAS numbers and treat accordingly. Store, transport and dispose of in accordance with procedures in product MSDS.

### 7. First Aid

**Eye Contact:** Flush immediately with clean water and seek medical attention.

**Skin Contact:** Wash affected areas with soap and fresh water. If a negative skin reaction is recurring, keep individual away and do not come into contact with material.

### 8. Warranties

AB-COR 950 SW provides a ten (10) year material warranty when the product is applied by an AC Tech approved applicator. Any product applied by an unapproved applicator is not covered by any warranty whatsoever. See limited warranty below.

### 9. Emergency Response

Info Trac: (800) 535-5053  
Contract # 104212  
Call this number if there is a spill or damaged container.

**FOR COMMERCIAL USE ONLY: KEEP OUT OF REACH OF CHILDREN & PERSONNEL NOT TRAINED IN ITS USAGE**  
**READ MSDS & SAFETY PRECAUTION PRIOR TO USE**

LIMITED WARRANTY: Allied Construction Technologies (AC Tech) warrants that this product is in accordance with the published specifications to be free of manufacturing defects and in the event that is product is proved to be defective and fails to meet printed specifications or published performance standards. (subject to all conditions and exclusions per the warranty sheet) AC Tech shall replace only those products proved defective. AC Tech shall not be responsible for any consequential damages due to the breach of this warranty. Notwithstanding the foregoing, AC Tech's liability shall not exceed the cost of the original product purchased. THE AB-COR 950 SW TECHNICAL DATA SHEET MAKES NO OTHER WARRANTIES EITHER EXPRESSED OR IMPLIED AS TO THE MERCHANTABILITY OR THE FITNESS OF THIS PRODUCT FOR A PARTICULAR PURPOSE. This agreement shall be governed by and construed in accordance with the laws of the Commonwealth of Virginia and all parties consent to jurisdiction in the courts located in the cities of Norfolk, VA and all parties agree that his is the sole and appropriate venue for any disputes arising out of the relationship created in this warranty.

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