



EXOCOAT AC

Sol-Gel Resin for Anticorrosive Coatings

General Information

EXOCOAT® AC is a sol-gel based anticorrosive conversion coating 60% in ethanol. It is used as replacement for chromium-based primers on aluminium and stainless steel.

Description and Application

EXOCOAT® AC is a hybrid sol-gel that covalently bonds to the surface. It is meant to be applied direct to metal (iron alloy, galvanized steel, phosphated steel, stainless steel and aluminium). It converts metal hydroxide surface into a stable, inert covalently bound monolayer.

The principle is to make the interface inert by the use of EXOCOAT® AC, which is not only interesting as direct-metal sol-gel based anti-corrosion coating but can also be used as micrometre-thin primer under conventional organic coatings. EXOCOAT® AC can be overcoated by various paints, though fits best with epoxy primer, polyurethane topcoat systems.

EXOCOAT® AC may omit the use of toxic chemicals and functions as replacement for Cr³⁺ and Cr⁶⁺ based systems as used in metal plating and aeromotive industries.

Features Direct to Metal

- >2000hrs QUV resistance
- >1000hrs saltspray resistance
- >1000hrs weathering resistance SAEJ2304
- Hydrophobic surface (CA_{H2O}=90)
- 4-5H pencil hardness
- Good overcoatability with Epoxies

Application EXOCOAT® AC

- Conventional low pressure and high pressure airless and airmix spraying
- Dipping, rolling, brushing

Usage instructions

- | | |
|-------|--|
| As 1K | Force cure 90°C, 1 hour |
| | Mix |
| As 2K | 75 parts of EXOCOAT AC with 25 parts of APTES* on volume basis |
| | Room temperature cure |
| | Surface dry: 15-30 mins |
| | Touch dry: 30-60 mins (overcoatable) |
| | Hard dry: 3-4 hrs |
| | Pot life of the mix is 3hrs |

* (3-Amino-propyl) triethoxysilane (APTES)

Dilution with isopropyl or ethyl alcohol till 30% total solids may be done to facilitate use.

Dry film thickness (DFT): typically 10-15µm

Specifications

Appearance:	Clear liquid
Active content:	45-55%
PH:	5-7
Viscosity (mPas):	20-60
Density (kg/l):	0.98 ±0.03

Regulatory

EXOCOAT® AC complies with the EC Regulation 1907/2006 (REACH) and TSCA, AICS, ENCS, KECL inventories.

Packaging

250ml, 2L, 5l

Storage

12 months in original container under 5-45 °C, dark condition

Transportation

No transport danger in air, sea, road and rail transportation.



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