

ARCHCO 403D

Vinyl Ester Glass Flake Coating

Description

Archco 403D is a vinyl ester two-part high solids reinforced glass flake coating that offers outstanding resistance to corrosion and abrasion. It is resistant to corrosive acids, alkalis, salts and a range of oxidizing chemicals.

Uses

Corrosion protection for oil storage tank linings, filtration vessels, ion exchange vessels, effluent streams and water treatment facilities. Also, used for the protection of process vessels, stacks, ducts, fume scrubbers, fan cases and many other corrosive environments.

Features

- Excellent corrosion resistance
- Fast dry and set times
- High build up to 20 mils in one coat
- High abrasion resistance
- Excellent undercutting resistance
- Very low water permeability
- Excellent water/sea water resistance
- High temperature tolerance
- Excellent cathodic disbondment results

Application

Prepare surfaces by grit blasting to a clean near white finish, SSC-SP10/NACE No. 2. For larger areas the Archco PD2 Primer shall be used. The coating can be applied by brush or airless spray in two coats, each coat being 17 to 20 mils thick. A wet film thickness gauge shall be used to measure uniform application of each coat. Plate edges, corners and weld areas shall be stripe coated by brush prior to application of the first coat and again before application of the finish coat. This will help ensure adequate coverage of these areas.

Inspection and Testing:

The dry film thickness of the completed coating shall be measured with an electronic instrument to ensure proper film thickness.

The finished cured coating shall be tested for holidays using a D.C. spark detector. A coating test voltage of 100 volts/mil shall be used.

Initially stir Part A (base) prior to adding Part B. The materials shall be 50°F (10°C) minimum before spraying. The Part B (catalyst) material shall then be added according to quantity and ambient conditions (see Catalyst Ratio Chart). Ensure the two components are fully mixed thoroughly using a mechanical whip prior to application. The mixed 403D material shall be sprayed immediately after mixing. **Note: Use of less than 1% catalyst will not produce a full cure of the coating material. Inadequate mixing will lead to areas of unsatisfactory cure.**

When applying by airless spray, refer to the equipment manufacturer's operating procedures. In addition, remove pump filter, surge pot, and in-line filters.

Clean tools and equipment with Acetone prior to material curing. Great care must be taken to avoid contaminating the coating material with Acetone as this can have adverse effects on the cure of the material.



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TECHNICAL DATA

PROPERTIES	VALUE
Solids Content	98 - 99%
Specific Gravity	1.2
Maximum Humidity During Application	90% RH
Operating Temperature	-4°F to 212°F (-20°C to 100°C)
Min. Substrate Temperature	50°F (10°C)
Minimum Dewpoint/Substrate Differential	Dewpoint +5°F (+3°C)
Dry Film Thickness Per Coat	17 - 20 mils
Theoretical Coverage	39 SF/Gal @ 40 mils DFT
Overcoating Times 68°F (20°C)	Min. 6 hrs – Max. 3 days
Preferred Equipment	Graco King 63:1 Airless
Airless Spray Tip Size	0.025 - 0.031 in.
Pressure at Tip	2500 - 3500 psi
Pot life 68°F (20°C)	15 - 20 minutes
Typical Curing Characteristics	
Substrate Temperature 59°F (15°C)	Touch Dry – approx. 3.5 hrs Full Cure - 2-7 days
Shelf Life	4 - 6 months
Flash Point	88°F (31°C)
Abrasion Resistance ASTM D 4060	0.035gm
Adhesion Properties ASTM D 952	8 Mpa
Salt Water Resistance ASTM B 1117-57T	20,000 hrs – No effect
Cathodic Disbondment CSA Z245.02 Clause 12.6	
140°F (60°C) – 28 days	10 mm
Tensile Strength ASTM D 638	3975 psi
Flexural Strength ASTM D 790	9425 psi
Water Soak Adhesion CSA Z245.02 Clause 12.8	
140°F (60°C) – 28 days	Rating 2
Standard Atlas Test NACE TM0174	
140°F (60°C) – 28 days	Very good adhesion – no blisters
Pressurized Atlas Cell NACE TM0174	
140°F (60°C) – 28 days	Very good adhesion – no blisters
Autoclave	
212°F (100°C) – 168 hrs	Good adhesion – no blisters
257°F (125°C) – 168 hrs	Good adhesion – no blisters
Electrochemical Impedance Spectroscopy (EIS)	
140°F (60°C) – 28 days, untested	Log Z = 9.1 ohms/cm _≦
140°F (60°C) – 28 days, Pressurized Atlas Cell	Log Z = 9.0 ohms/cm _≦

STORAGE: Minimum 4 - 6 months when stored in original containers @ 41°F (5°C) to 80°F (27°C).

CLEANING: Clean equipment with MEK or equivalent solvent cleaner.

HEALTH AND SAFETY: Wear protective clothing and ensure adequate ventilation. Avoid contact with skin and eyes. See material safety data sheet for further information.

PACKAGING: 1 gallon kit and 5 gallon kits standard. Other kit sizes are available.



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