PRODUCT DATA SHEET

ARCHCO 436TM EPOXY Epoxy Lining for Pipes, Tanks, and Railcars in Water Service

Description

Archco 436 is a multi-purpose, surface-tolerant, 100% solids, two-part epoxy coating system designed for internal pipe, tank, and hopper car linings. Archco 436 is suitable for single-leg or plural-component spray application.

Uses

Corrosion protection for internal steel and steel pipes in a variety of industries. The lining will protect the steel against seawater, wastewater, and any other water service offering chemical, fuel and solvent resistance up to 160°F (65°C). Archco 436 is an FDA-Compliant coating system suitable for direct food contact. It is in accordance with CFR Title 21, Part 175.300, and 175.105 for direct and indirect food contact as a resinous adhesive or coating.

Features

Excellent adhesion

- · Cathodic disbondment resistance
- · Excellent flexibility
- Excellent abrasion and impact resistance
- Suitable for salt and fresh water immersion
- · Good adhesion to damp surfaces and tight rust
- Surface tolerant

Application

All contaminants shall be removed from the steel surface to be coated. Oil and grease should be removed in accordance to SSPC-SP-1. Surfaces shall be free from projections. Sharp edges, high points and fillets must be ground smooth including all corners. Prepare surfaces by grit blasting to a clean, near-white finish, per SSOC-SO 10, NACE No. 2 or Sa 2-1/2. Appropriate angular grit shall be used to achieve a 3-5 mil (76 - 127 microns) anchor profile. Remove grit prior to coating. In-situ pipe lining normally uses a 1.5 mil (38 microns) anchor profile due to the small application thickness.

To apply Archco 436 using a plural unit, a plural-component, airless spray unit with a proportioning pump capable of a volume mixing ratio of 1:1 shall be used. Standard ancillary equipment should include minimum 10 gallon (38 L) hoppers, 2 each static mixers, 25 ft. max x $\frac{1}{4}$ " (7.6 m x 6.3 mm) whip hose, and a mastic gun with 23-31 thou tip. Part A should be heated to 80°F-100°F (26°C-38°C) and Part B should be heated to 90°F-110°F (32°C-43°C). Hose bundle shall be set at 90°F-110°F (32°C-43°C). To apply Archco using a single-leg unit, a unit with a minimum of 68:1 airless pump shall be used. When using the airless unit, the Archco 436 should not be thinned more than 5% with Archco 400E (3 lbs per 5 gal kit (1.4 kg/19L kit).

A wet-on-wet spray technique should be used to achieve a thickness of 10 - 30 mils (254 - 762 microns) DFT. The coating thickness should be measured using a wet-film thickness gauge. Holiday testing shall be performed to ensure a pinhole free lining. The equipment settings are only guidelines and may vary based on equipment and specific application.



Archco 436[™] Epoxy

TECHNICAL DATA

Properties	VALUE
Solids Content, by volume	100%
Base Component – unmixed @ 77°F (25°C)	
Specific Gravity	1.5
Viscosity	6,000 cP
Color	Gray
Hardener – unmixed @ 77°F (25°C)	
Specific Gravity	1.6
Viscosity	30,000 cP
Color	White
Mixed Material — mixed @ 77°F (25°C)	
Specific Gravity	1.6
Viscosity	18,000 cP
Color	Off-white
Mixing Ratio (A/B) by Volume	1:1
by Weight	0.9:1
Cure Times	
Pot Life @ 77°F (25°C)	90 minutes
Pot Life @ 97°F (36°C)	40 minutes
Time to Dry @ 35°F (2°C)	24 - 36 hours
Time to Dry @ 50°F (10°C)	12 - 16 hours
Time to Dry @ 77°F (25°C)	4 - 6 hours
Cure for Immersion (crude oil)	
@ 77°F (25°C)	8 hours
	80 ft ² /20 mils/gallon
Theoretical Coverage	(2.0m ² /0.50mm/liter)
Thickness per coat	10-30 mils (254 - 762 microns)
Holiday Detection – based on min. mil.	100 V/mil (3.936 V/mm)
Hardness (ASTM D2240-02)	Shore D 80
Adhesion to Steel	3.200 psi (22 MPa)
Application Temperature	40 - 100°F (4 - 36°C)
Service Temperature	0 150°E (19 65°C)
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STORAGE: Minimum 24 months when stored in original containers @ 40°F (4°C) to 105°F (41°C). On job site where temperatures are below 50°F (10°C) product should be kept warm to allow for easy transfer into storage hoppers for warming to proper spraying temperatures.

CLEANING: Clean equipment with MEK or equivalent solvent cleaner, such as Archco 400E Thinner.

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 (3.8 L), 2 gallon (7.6 L), and 5 gallon (19 L) kits. Other sizes available upon request.



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 Female Comparison

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