

ARCHCO™ 480 EPOXY

Epoxy Lining for Ethanol Tanks

Description

Archco™ 480 Epoxy is a 100% solids, two-part, epoxy cycloaliphatic-amine system designed for fast-return-to-service, internal tank linings. The coating has excellent low-temperature cure properties and resistance to ethanol.

Uses

Corrosion protection for steel tanks and internal pipes in a variety of industries. The coating will protect tanks and piping against crude oil, seawater, wastewater, fuels, solvents, lubricants and acids.

Features

- 100% Solids
- Excellent resistance to ethanol
- Very low permeability
- Excellent adhesion
- Excellent overcoat window
- Cures at temperatures down to 2°C
- Fast dry and set times
- Cures under cool and damp climates
- Good flexibility and impact resistance
- Fast return to service

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, SSPC-SP 10, NACE No. 2 or Sa 2-1/2. Appropriate angular shall be used to achieve a 3 to 5 mil (76 - 127 microns) anchor profile.

To spray the Archco™ 480 Epoxy, a plural component airless spray unit with a proportioning pump capable of a volume mixing ratio of 4:1 shall be used. Standard ancillary equipment should include minimum 10 gallon (38 liters) hoppers, 2 each static mixers, 25 ft. max x ¼" (7.6 m max x 6.3 mm) whip hose, and mastic gun with a 23 to 31 thou tip. Part A should be heated to 100-120°F (38°C-49°C) and Part B should be heated to 90-110°F (32°C-43°C). Hose bundle shall be set at 100-120°F (38°C-49°C). A wet on wet spray technique should be used to achieve a minimum thickness of 20 mils (508 microns). The coating thickness should be measured using a wet film thickness gauge. The equipment settings are only guidelines and may vary based on equipment and specific application.

For complete application instructions, please refer to Archco™ 480 Epoxy application specifications.



Archco™ 480 Epoxy

TECHNICAL DATA

PROPERTIES	VALUE
Solids Content	100%
Base Component — unmixed @ 77°F (25°C)	
Specific Gravity	1.5
Viscosity	35,000 cP
Colour	White
Hardener — unmixed @ 77°F (25°C)	
Specific Gravity	1.0
Viscosity	2000 cP
Colour	Blue
Mixed Material — mixed @ 77°F (25°C)	
Specific Gravity	1.4
Viscosity	15,000 cP
Colour	Blue
Mixing Ratio (A/B) by Volume	4 Parts Base: 1 Part Hardener
by Weight	6.2 Parts Base: 1 Part Hardener
Cure Times	
Pot Life @ 77°F (25°C)	15 minutes
Pot Life @ 97°F (36°C)	8 minutes
Time to Dry @ 35°F (2°C)	24-36 hours
Time to Dry @ 50°F (10°C)	12-14 hours
Time to Dry @ 77°F (25°C)	3-4 hours
Cure for Immersion (ethanol)	
@ 35°F (2°C)	36 hours
@ 75°F (24°C)	24 hours
Recoat Window	
@ 77°F (25°C)	30 days
Theoretical Coverage	2.0 m ² /0.50 mm
Thickness per coat	20-60 mils (508-1524 microns)
Holiday Detection – based on min. mil.	125 volts/mil (4,920 V/mm)
Hardness (ASTM D2240-02)	Shore D 82 +/-2
Adhesion to Steel	3,200 psi (22 MPa)
Application Temperature	35-100°F (2-36°C)
Service Temperature	35-150°F (2-66°C)

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: 5 gallon (19 liters) & 20 gallon (76 liters) kits. Other sizes available upon request.



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