

ARCHCO™ 454HT EPOXY

High Temperature Internal Epoxy Phenolic-Novolac Lining for Vessels and Pipes

Description

Archco 454HT Epoxy is a 83% solids, two-part, high-temperature resistant, epoxy phenolic-novolac system designed for internal vessel linings with excellent chemical and temperature resistance over a wide range of temperatures and pressures.

Uses

Corrosion protection for steel vessels and internal pipes in a variety of industries. The coating will protect vessels against crude oil, seawater, wastewater, fuels, solvents, and lubricants up to 350°F (177°C).

Features

- Very low permeability
- Excellent adhesion
- Excellent overcoat window
- Excellent chemical and high temperature resistance (up to 350°F / 177°C)
- Excellent resistance to H₂S gases
- Post cure at 200°F (93°C) for 2 hours required. (Refer to spray application spec for complete cure schedule)

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 white finish, (SSPC-SP 5, NACE No. 1 or Sa 3). Appropriate angular grit shall be used to achieve a 2.5 to 5 mil (0.063 to 0.13 mm) anchor profile. Vacuum vessel floor to remove grit prior to coating.

Single leg airless unit, it shall be a minimum of 68:1 airless pump mastic gun with a 28 to 35 (0.71 to 0.88 mm) thou tip. When using an airless unit the Archco 454HT should not be thinned more than 5% with Archco Thinner 400E (3 lbs. per 5 gal. kit). A wet-on-wet spray technique should be used to achieve a minimum thickness of 20 mils (508 microns) DFT. 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. To properly cure this lining, the vessel surface must be held at 200°F (93°C) for a minimum of 2 hours. The application information provided here is meant to provide preliminary information. Please refer to the spray application specifications for more complete information.



Archco™ 454HT Epoxy

TECHNICAL DATA

PROPERTIES	VALUE
Solids Content	83%
Base Component — unmixed @ 77°F (25°C)	
Specific Gravity	1.4
Viscosity	15,000 cP
Color	White
Hardener — unmixed @ 77°F (25°C)	
Specific Gravity	1.0
Viscosity	2,000 cP
Color	Amber
Mixed Material — mixed @ 77°F (25°C)	
Specific Gravity	1.2
Viscosity	10,000 cP
Color	Off White
Mixing Ratio (A/B) by Volume	4 Parts Base: 1 Part Hardener
by Weight	5.7 Parts Base: 1 Part Hardener
Cure Times	
Dry to Touch @ 90°F (32°C)	10-12 hours
Time to Cure @ 200°F (93°C)	2 hours min.
Recoat Window Prior to Final Cure	
@ 90°F (32°C)	24 hours
Theoretical Coverage	80 ft ² /20 mils/gallon (2.0 m ² /0.50 mm/liter)
Thickness per coat	15-20 mils (381-508 microns)
Holiday Detection — based on min. mil.	100 volts/mil (3936 volts/mm)
Hardness (ASTM D2240-02)	Shore D 82 +/-2
Adhesion to Steel	3,200 psi (22 MPa)
Application Temperature	90 to 122°F (32 to 50°C)
Service Temperature	35 to 350°F (2 to 177°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), 25 gallon (95 liters) kits. Other sizes available upon request.



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