

ARCHCO 466 EPOXY

Glass Flake Epoxy Coating for Tank, Vessels, Pipe and Down Hole Application High Temperature and Chemically Aggressive Environments

Description

Archco 466 Epoxy is a multi-purpose, two-part, epoxy phenolic novolac coating system designed for applications requiring excellent chemical resistance to oil products, acids (sulfuric and hydrochloric), solvents, inorganic salts and water. Archco 466 Epoxy also provides excellent thermal resistance. Archco 466 is suitable for application via single-leg or plural spray equipment.

Uses

Archco 466 Epoxy provides corrosion protection for internal steel, steel pipes, tubulars, down-hole casing, vessels and tanks in a variety of industries. The coating will provide protection against crude oil, natural gas, seawater, wastewater, fuels, solvents, lubricants, acids, H₂S, and inorganic salts. Archco 466 Epoxy provides dry heat resistance up to 500°F (260°C) and up to 420°F (216°C) service depending on the fluids present.

Features

- Very low permeability
- Excellent adhesion
- Excellent chemical resistance
- Excellent resistance to H₂S gases
- Excellent temperature resistance (up to 500°F / 260°C)
- Excellent abrasion resistance

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 SSPC-SP 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. Vacuum vessel floor to remove grit prior to coating.

To spray Archco 466 Epoxy in a plural-component system, an 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 L) hoppers, 2 each static mixers, 25 ft. max. x ¼" (7.5 m max. x 6.25 mm) whip hose, and mastic gun with a 19 to 25 thou tip. A minimum of 2800 psi (17.5 MPa) fluid pressure at the tip is required for proper atomization. Part A should be heated to 80°F-100°F (27°C-38°C) and Part B should be heated to 80°F-100°F (27°C-38°C). Hose bundle shall be set at 80°F-100°F (27°C-38°C). A single-leg, airless spray unit may also be used. The unit shall have a minimum of 45:1 airless pump. When using the airless unit, the Archco 466 should not be thinned more than 5% with Archco 400E Thinner, 3 lbs per 5 gal kit (1.35 kg per 19 L kit). Material shall be between 70°F and 90°F (21°C-32°C).

A wet-on-wet spray technique should be used to achieve a thickness of 30-40 mils (0.76 - 1.02 mm) DFT in two coats of 15-20 mils (0.38 - 0.51 mm) per coat. 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. Please refer to the spray application specification for more complete information.



Archco 466 Epoxy

TECHNICAL DATA

PROPERTIES	VALUE
Solids Content, by volume	84%
Base Component – unmixed @ 77°F (25°C)	
Specific Gravity	1.4
Viscosity	25,000 cP
Color	White
Hardener – unmixed @ 77°F (25°C)	
Specific Gravity	1.0
Viscosity	6,000 cP
Color	Amber
Hardener – unmixed @ 77°F (25°C)	
Specific Gravity	1.4
Viscosity	20,000 cP
Color	Off-white
Mixing Ratio (A/B) by Volume	4:1
By Weight	5.9:1
Cure Times	
Pot Life @ 77°F (25°C)	180 min
Pot Life @ 97°F (36°C)	35 min
Time to Dry @ 50°F (10°C)	10-12 hr
Time to Dry @ 77°F (25°C)	4-6 hr
Recoat Window @ 77°F (25°C)	16 hours
Theoretical Coverage	90 ft ² /15 mils/gallon (2.2 m ² /381 microns/L)
Thickness per coat	15-20 mils DFT (381-508 microns)
Holiday Detection – based on minimum mils	125 V/mil (4,920 V/mm)
Hardness (ASTM D2240-02)	Shore D 80
Adhesion to Steel	3,200 psi (22 MPa)
Immersion Heat Resistance	420°F (216°C)
FBE	420°F (216°C)
Application Temperature	50°F - 140°F (10°C - 60°C)
Service Temperature	0°F - 350°F (-18°C - 177°C)

STORAGE: Minimum 24 months when stored in original containers between 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 Safety Data Sheet for further information.

PACKAGING: 5 gallon (19 liter) and 25 gallon (95 liter).



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