PRODUCT DATA SHEET

Archco™ 466 Epoxy

Glass Flake Epoxy Coating for Tank, Vessels, Pipe and Down Hole Applications
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, H_2S, 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 H_2S 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. 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 (0.50 to 0.65 mm) tip. A minimum of 2800 psi (17.5 MPa) fluid pressure at the tip is required for proper atomisation. 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 applicatoin specification for more complete information.

Denso®

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
Colour	White
Hardener – unmixed @ 77°F (25°C)	
Specific Gravity	1.0
Viscosity	6,000 cP
Colour	Amber
Hardener – unmixed @ 77°F (25°C)	
Specific Gravity	1.4
Viscosity	20,000 cP
Colour	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 (10oC)	10-12 hr
Time to Dry @ 77°F (25°C)	4-6 hr
Recoat Window @ 77°F (25°C)	16 hr
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 thickness	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 to 60°C)
Service Temperature	0°F - 350°F (-18°C to 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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