

ARCHCO™ 466P EPOXY

Glass Flake Epoxy Coating for Down Hole Interior Tubulars High Temperature and Chemically Aggressive Environments

Description

Archco 466P 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 466P Epoxy also provides excellent thermal resistance. Archco 466P is suitable for application via plural spray equipment.

Uses

Archco 466P 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 466P Epoxy provides dry heat resistance up to 500°F (260°C) and up to 420°F (215°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. Remove grit prior to coating.

To spray Archco 466P 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 20 to 32 thou tip. A minimum of 2800 psi (17.5 MPa) fluid pressure at the tip is required for proper atomization. Part A can be heated to 100°F -150°F (38°C -65°C) and Part B should be heated to 80°F-130°F (27°C-54°C). Hose bundle shall be set at 130°F-150°F (54°C-65°C). The unit shall have a minimum of 68:1 airless pump.

A wet-on-wet spray technique should be used to achieve a thickness of 20-40 mils (0.51 - 1.02 mm). DFT should not exceed 50 mils (1.27 mm). 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.



Archco™ 466P Epoxy

TECHNICAL DATA

| PROPERTIES | VALUE |
|--|--|
| Solids Content, by volume | 100% |
| Base Component – unmixed @ 77°F (25°C) | |
| Specific Gravity | 1.5 |
| Viscosity | 30,000 cP |
| Color | White |
| Hardener – unmixed @ 77°F (25°C) | |
| Specific Gravity | 1.1 |
| Viscosity | 12,500 cP |
| Color | Amber |
| Hardener – unmixed @ 77°F (25°C) | |
| Specific Gravity | 1.4 |
| Viscosity | 25,000 cP |
| Color | Off-white |
| Mixing Ratio (A/B) by Volume | 4:1 |
| By Weight | 5.8:1 |
| Cure Times | |
| Pot Life @ 77°F (25°C) | 50 min |
| Pot Life @ 97°F (36°C) | 20 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 | 80 ft ² /20 mils/gallon (2.0 m ² /508 microns/L) |
| Thickness per coat | 20-40 mils DFT (508-1016 microns) |
| Holiday Detection – based on minimum mils | 100 V/mil (3,936 V/mm) |
| Hardness (ASTM D2240-02) | Shore D 80 |
| Adhesion to Steel | 3,200 psi (22 MPa) |
| Immersion Heat Resistance | 420°F (215°C) |
| Application Temperature | 50°F - 140°F (10°C - 60°C) |
| Service Temperature | 0°F - 420°F (-18°C - 215°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 Acetone.

HEALTH AND SAFETY: Wear protective clothing and ensure adequate ventilation. Avoid contact with skin and eyes. See Safety Data Sheet for further information.

PACKAGING: 25 gallon (95 liter).



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