

CPP™ Sprayliner™



Item# C3115 Revised: 2/6/2022

Structural grade, ultra-high build spray applied fiber reinforced polymer (FRP) blended cycloaliphatic epoxy

Description

Epoxytec CPP™ Sprayliner™ is a two-component moisture insensitive, highly adhesive, chemical resistant, 100% solids, high strength and reinforced epoxy. Equal to “standard” CPP once cured, this version is packaged more conveniently for spray applicators seeking to utilize plural-component heated spray application. The material can be sprayed ultra-high build, between 1/16” – 1/4” (62.5 – 250 mils) per pass. Blended with reinforcing agents and various fibers, the Epoxytec CPP™ Sprayliner™ when cured creates reinforcement lining as a fiber-reinforced-polymer (FRP), with high strength and flexural properties for partially or fully deteriorated structures.

Features

- 100% solids, no VOCs
- Convenient 1:1 ratio
- Excellent chemical resistance
- Structural, with movement tolerance
- No sag, ultra-high build
- Surface forgiving & moisture tolerant (cures underwater)
- Ultra-high adhesion, self-priming
- Great for sectional lining requirements

Typical Uses

CPP™ Sprayliner™ has been designed to line many aggressive, enclosed, immersive, and partially opened environments. CPP™ Sprayliner™ performs in areas subject to chemical attack, and as a sealer preventing oxidation while holding back water migration, inflow/infiltration (I&I), and hydrostatic pressure. Ideally suited as a protective coating/lining solution for:

- Concrete repair and protection
- Chemical liner
- Structural lining
- Industrial and treatment structures, tanks, pipes, stations, manholes, etc.
(high hydrogen sulfide [H₂S] resistance [up to 1000 ppm])

Film Thickness

CPP™ Sprayliner™ can be applied as a single coat or multi-coat system. For mild conditions, CPP™ Sprayliner™ can be applied at a minimum of 1/16” (~60 mils). For aggressive conditions, CPP™ Sprayliner™ is recommended at min. 125 mils. Maximum build-up per coat is 3/8” (375 mils) without sag per coat, depending on temperature. For applications requiring thicker lining, multiple passes may be utilized. For fully deteriorated structures, where a fully structural design thickness is required, various structural design criteria will need to be calculated for the proper thickness recommendation.

Theoretical Coverage

CPP™ Sprayliner™ is 100% solid and will not shrink. Therefore, the theoretical coverage properties between wet film thickness (WFT) and dry film thickness (DFT) are the same. One-gallon yields 231 cu.in. of neat epoxy.

- @ 1/16” (62.5 mils), product yields 25.6 sq.ft.
- @ 100 mils, product yields 16 sq.ft.
- @ 1/8” (125 mils), product yields 12.8 sq.ft.
- @ 1/4” (250 mils), product yields 6.4 sq.ft.

Surface Preparation

The success of any coating application is directly proportional to the completeness of the substrate preparation and the care the application crew puts into the application. Surface must be clean and sound. Remove all dust, contaminants, grease, curing compounds, rust, impregnation, waxes, foreign particles, and disintegrated materials from the surface, in order to achieve a clean and profiled surface.

Concrete: Prepare the concrete by abrasive blasting, high pressure water cleaning and/or jetting, and/or other approved methods to achieve clean, sound, and profiled concrete (min. ICRI CSP-5) in accordance with SSPC-SP 13 / NACE No. 6. “Surface Preparation of Concrete.”

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Steel: Before preparing or applying on steel, verify that the temperature of the surface is at least 3 degrees C (5 degrees F) from the dew point temperature to preclude condensation. Inspect and remove oil, grease, or other contaminants - "Solvent Cleaning" (SSPC-SP1) may be required. Abrasive blasting (or other approved mechanical methods) to SSPC-SP-6/NACE No. 3 "Commercial Blast Cleaning" must be administered in order to achieve a clean surface with a minimum profile of 100 microns (4 mils); remove dust and debris by high compressive air or solvent cleaning (SSPC-SP1) may be required again. To prevent flash rusting, consider the use of an Epoxytec recommended holding primer.

Application Method

Epoxytec CPP™ Sprayliner™ is designed to be sprayed utilizing specialized equipment, specified, proven and sold by approved equipment vendors of Epoxytec. This is a fully heated, plural component system with recirculating and agitating heated hoppers up to 150F, materials flow through separate part A and part B continuously heated hoses. Mixing occurs in a static chamber prior to a single whip hose; and must have purging capability through the mixing chamber, the whip hose and spray gun. The system must be fixed ratio of 1:1 by volume with a minimum of 25 gallon preheating holding capacity for each part of material. Further detailed spraying equipment specifications can be obtained by approved vendors.

Epoxytec limits the sale of Epoxytec CPP™ Sprayliner™ until all equipment and know-how is validated by one of Epoxytec's certified equipment vendors and consultants. In addition, Epoxytec only recommends select and approved, Epoxytec CPP™ Sprayliner™ certified consulting vendors/distributors to validate the equipment and know-how prior to fulfilling any production or sales order. For detailed spray equipment specifications, heating, pressure, power, hose specs, purging/cleaning requirements or designs- contact Epoxytec for a list of Epoxytec CPP™ Sprayliner™ certified equipment vendors/distributors.

Purge and clean with Epoxytec Cut 5 solvent.

Storage & Handling

- Shelf life: 12 months, sealed.
- Storage: Store in a dry area away from direct sunlight.

Packaging & Color

Kit comes with A component and B component separately.

- 10 Gallon Kit (pails) - off-white/light grey
- 100 Gallon Drums (drums) - off-white/light grey

Safety

Consult Material Safety Data Sheet (SDS) for all material safety information. Consult safety manuals of all equipment utilized.

Technical Properties

Finish		light coarse - orange peel (depending on heat & tips)
Mix Ratio		1:1 by volume
Type		proprietary hybrid fiber-reinforced-polymer (epoxy/epoxide)
Solids by Volume	ASTM D2697	100%
Solvent (VOC)	ASTM D3960	none
Pot Life		30 min. (77F / 200 g mass)
Adhesion Strength	ASTM D4541	substrate failure
Adhesion Strength (steel)	ASTM D4541	1,500 psi
Water Absorption	ASTM D1653	< 0.1 g/sq.m.
Acid Exposure (pH 1, H ₂ SO ₄)		passed
Tensile Strength	ASTM D638	8,500 psi
Diagonal Shear Strength	ASTM E519	6,365 psi
Flexural Modulus	ASTM D790	600,000 psi
Flexural Strength	ASTM D790	7,630 psi
Compressive Strength	ASTM D695	16,000 psi
Elongation	ASTM D2370	5.5%
Gel Time		25 min. (120F) 10 min. w/ flash exotherm (140F)
Complete Cure		2 hours (120F) 30-45 min (140F)
Temperature Exposure (dry)		5F - 180F
Temperature Exposure (wet)		32F - 180F