

CPP™ Sprayliner™ 61



Item# C61S Revised: 2/6/2022

Structural-grade, ultra-high build spray applied fiber reinforced polymer (FRP) epoxy for potable drinking water

Description

Epoxytec CPP™ Sprayliner™ 61 is a two-component, 100% solids, ultra-high build, spray-applied, structural-grade epoxy system. Formulated specifically for use in potable drinking water environments (certified ANSI/NSF-61), and utilizes a blended cycloaliphatic curing system for increased chemical resistance and UV tolerance. Similar to “standard” CPP once cured, this version is packaged more conveniently for applicators seeking to spray with heated plural-component equipment. The material can be sprayed ultra-high build, up to 1/4” (250 mils) per pass without sag. Blended with reinforcing agents and various micronized fibers, the Epoxytec CPP™ Sprayliner™ 61 when cured creates a high mechanical strength film for reinforced lining as a fiber-reinforced-polymer (FRP), exhibiting high flexural and tensile strengths.

Features

- ANSI/NSF-61 certified
- 100% solids, no VOCs
- Convenient 1:1 (v) ratio
- Excellent chemical resistance
- Structural-grade (high mechanical strength)
- Ultra-high build
- Surface forgiving & moisture tolerant
- Great adhesion



Typical Uses

CPP™ Sprayliner™ 61 has been designed to line drinking water infrastructure. CPP™ Sprayliner™ 61 performs in areas subject to chemical attack, and as a barrier 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 resistant liner
- Structural-grade, high mechanical strength lining
- Potable drinking water lining

Film Thickness

CPP™ Sprayliner™ 61 can be applied as a single coat or multi-coat system. For mild conditions, CPP™ Sprayliner™ 61 can be applied at a minimum of 1/16” (~60 mils). For aggressive conditions, CPP™ Sprayliner™ 61 is recommended at min. 125 mils. For applications requiring thicker lining, multiple passes may be utilized.

Note: For fully deteriorated structures, where fully structural design is required, various structural design criteria will need to be calculated for proper thickness design recommendations.

Thicknesses outlined herein are a basis of design for generalized guidance. Refer to epoxytec.com for various detailed CSI-formatted project design guidelines, and/or consult with Epoxytec for other specific design considerations.

For drinking water: 125 mils max. (1-2 coats)

Theoretical Coverage

CPP™ Sprayliner™ 61 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 (231 cu.in.) of neat epoxy, and will yield:

- @ 1/16” (~60 mils), product yields 26 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.

NOTE: Coverage values are provided as an estimate for guidance based on theoretical calculations; does not include wastage or surface conditions/imperfections.

Surface Preparation

The success of any coating application is directly proportional to the extensiveness of the surface preparation and the care into the application. Surface must be clean and sound. Remove all dust, contaminants, grease, curing compounds, rust, impregnation, waxes, foreign particles, and weak or disintegrated materials from the surface, and utilize advised methods to achieve a clean and profiled surface. <cont>>



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Concrete: Allow new concrete to cure for a min. of 28 days. Prepare the concrete by abrasive blasting, high pressure water cleaning 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." NOTE: Epoxytec CPP™ Sprayliner™ 61 can be applied direct to concrete (DTC), self-priming. However, should an abnormal or conditional situation exist (ie- outgassing, MVT, etc), primers and/or resurfacers (although optional) may assist, and may be recommended.

Steel: Inspect and remove oil, grease, chlorides or other contaminants - "Solvent Cleaning" (SSPC-SP1) may be required. Abrasive blasting (or other approved mechanical methods) SSPC-SP10 / NACE 2, "Near-White 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. 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. NOTE: Epoxytec CPP™ Sprayliner™ 61 can be applied direct to metal (DTM), self-priming. However, should an abnormal or conditional situation exist or if a "holding" primer is needed to prevent flash rusting, consider the use of an Epoxytec recommended primer.

NOTE: Methods outlined herein are a basis of design for generalized guidance. Refer to epoxytec.com for various detailed CSI-formatted project design guidelines, and/or consult with Epoxytec for other specific design considerations.

Application Method

Epoxytec CPP™ Sprayliner™ 61 is designed to be sprayed utilizing specialized equipment, specified, proven and sold by approved equipment vendors of Epoxytec. Requires fully heated, plural component system with recirculating and agitating heated hoppers up to 120F, with 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. Purge and clean with Epoxytec Cut 5 solvent. 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. NOTE: Epoxytec limits the sale of Epoxytec CPP™ Sprayliner™ 61 until all equipment and know-how is validated by one of Epoxytec's certified equipment vendors and consultants. In addition, Epoxytec only recommends certain approved vendors 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™ 61 certified equipment vendors/distributors.

Limitations

Do NOT thin. Keep surface and ambient temperatures above 55F while curing. Keep relative humidity below 65%, keep away from dew/condensation and/or carbon dioxide to avoid amine exudate (blush).

Storage & Handling

Shelf life: 12 months, sealed. Store in climate controlled (55F – 85F) and dry area away from direct sunlight.

Packaging & Color

Kit comes with A component and B component separately.

- 10 Gallon Kit (pails) OW/Off-White
- 100 Gallon Drums (drums) OW/Off-White

Technical Properties

Type		proprietary hybrid fiber-reinforced-polymer (epoxy/epoxide)
Finish		light coarse - orange peel (depending on heat & tips)
Mix ratio		1:1 by volume
Solids (by volume)	ASTM D2697	100%
Solvent (VOC)	ASTM D3960	none
Pot life / gel time		30 min. (77F / 200 g mass)
Adhesion strength (concrete)	ASTM D4541	substrate failure
Adhesion strength (steel)	ASTM D4541	2,000 psi
Water absorption	ASTM D1653	< 0.1 g/sq.m.
Acid exposure (pH 1, H ₂ SO ₄)		passed
Tensile strength	ASTM D638	7,900 psi
Flexural modulus	ASTM D790	580,000 psi
Flexural strength	ASTM D790	7,100 psi
Compressive strength	ASTM D695	14,000 psi
Elongation	ASTM D2370	4.5%
Complete cure (return-to-service)		24 hrs (77F – 104F, non-potable) 72 hrs (77F – 104F, potable)
Temperature exposure (dry)		up to 180F
Temperature exposure (wet)		up to 180F

Safety

Consult Material Safety Data Sheet (SDS) for all material safety information. Consult safety manuals of all equipment utilized. FOR PROFESSIONAL AND INDUSTRIAL USE ONLY. KEEP AWAY FROM CHILDREN. NOT FOR RESIDENTIAL USE.



Important! Although the technical details and recommendations contained in this data sheet correspond to the best of our knowledge and experience, all the above information must, in every case be taken as merely indicative and subject to confirmation after long-term practical applications; for this reason, anyone who intends to use the product must ensure beforehand that it is suitable for the envisaged application. In every case, the user alone is fully responsible for any consequences deriving from the use of the product. The sole liability of Epoxytec for any claims out of the manufacturer's use of sale of its products shall be for the buyer's purchase price.