

EPIWELD[®] C-200

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Supersedes all previous publications



Product Description

EPIWELD[®] C-200 is a high quality chemically cured coal tar epoxy coating. It is a two component high film build primer and finish coating designed for use where solvent and chemical attack protection of concrete, steel, aluminum, and wood substrates is needed. May be used on interior or exterior surfaces and in immersion conditions where the solvent and corrosion resistance characteristics of coal tar pitch and epoxy resins are required. The resulting hard, thick film barrier protects concrete, metal, and other surfaces against chemical attack as well as physical damage from direct impact, abrasion, and flexing. Due to the relatively high non-volatile content of **EPIWELD[®] C-200**, film thickness can be built up quickly with a minimum number of coats. A cured coal tar epoxy coating will not sag on vertical surfaces at high temperatures. **EPIWELD[®] C-200** meets the requirements of Corps of Engineers C-200, MIL-P-23236, and Painting Council Spec. SSPC# 16-68T.

When applied at a minimum of 16 mils dry film thickness - 90 square feet per gal. (2.2-m²/L), **EPIWELD[®] C-200** exhibits excellent resistance when immersed in or subject to the following conditions at ambient temperatures.

Petroleum Products - gasoline, diesel, jet fuel, naphtha, crude oils, aliphatic hydrocarbons, lubrication oils.

Acid Solutions - 10% phosphoric acid, oxalic acid, citric acid. Lab tests show that with the exception of acetic and nitric acids **EPIWELD[®] C-200** exhibits excellent resistance of intermittent or splash exposure to alkalis and mineral acids at ambient temperatures.

Alcohols - Immersion resistance is also excellent in methyl alcohol, and isopropyl alcohol.

Chemical Solutions - fresh water, sea water, calcium chloride, sodium acetate, sodium nitrate, magnesium sulfate.

EPIWELD[®] C-200 has given excellent service on the interior and exterior of concrete dike areas, pipes, piers, and in all types of industrial installations where chemical fumes, chemical spillages and abrasion are issues.

Installation

Before using this product, please refer to the Material Safety Data Sheet for additional information. Proper handling precautions MUST be followed. The conditions of use, handling, and application of this product and information (whether verbal or written), including any suggested formulations and recommendations, are beyond Lambert Corporation's control. Therefore, it is imperative that testing be performed to determine satisfaction and suitability for intended use and health, safety, and environmental issues. The following information is meant as a guideline of best industry practices. While Lambert Corporation does suggest adherence to these guidelines, unforeseeable variables and/or developed successful installer practices may cause variation in methods and/or results.

The success of any coating application is directly proportional to the completeness of the substrate preparation. Surface must be clean and structurally sound.

Surface Preparation - Concrete

All curing compounds, form releases or oils, laitance, efflorescence, rust and loose concrete must be removed. Concrete must be clean, structurally sound, thoroughly cured and dry before coating. For best results concrete should be brush sandblasted or etched with a 10% muriatic acid solution to achieve a medium sandpaper type finish. Cast concrete should be brush sandblasted to open bug holes and to roughen the surface. Remove dust before coating. A prime coat of **EPIWELD[®] C-200** will penetrate concrete to provide a good base prior to application of **EPIWELD[®] C-200** finish coat. Thin the material 40% by volume with lacquer thinner when applying as primer.

Surface Preparation - Steel

Metals should be sanded or sandblasted to a commercial blast finish. Blasting shall be done with a centrifugal wheel or compressed air blasting equipment. If mechanical cleaning is impractical, chemical cleaning could be used, such as a 10% solution of muriatic acid followed by a water rinse and neutralization. Blow dust and grit from surface with clean dry air. A lightly abraded surface gives a better mechanical key. Surface must be dry. Coat within 8 hours or before rust and contamination occurs.

Surface Preparation - Aluminum

Use a very light brush-off sand blasting. If wet sand blasting is used allow the surface to thoroughly dry before coating, remove dust and apply as described under -Concrete Application.

Surface Preparation - Wood

Rough sand, remove dust and apply as described under - Concrete Application.

Mixing

EPIWELD[®] C-200 should be stored at a minimum of 70°F (21.1°C) for at least 24 hours prior to use and should not be applied at temperatures less than 50°F (10.0°C) or in wet or threatening weather. It is supplied in two separate containers with pre-measured amounts for the correct mixing ratio. Always mix a complete unit in the proportions supplied.

Packaging:

2 gal-Total Unit (7.6L)
1 gal (3.8L) per
Part A and Part B

½ gal-Total Unit (1.9L)
1 quart (0.95L) per
Part A and Part B

1. Thoroughly stir component A.
2. Thoroughly stir component B.
3. Slowly add component B to A.
4. Blend and mix thoroughly for at least 2 minutes.
5. Pour some of the mixed material back into component B and stir.
6. Return component B to A.
7. Stir vigorously for at least 2 min.

This material is designed to use the entire contents at one time. If it is necessary to mix small quantities the mixing ratio is 4 parts of component A to 1 part component B by volume.

EPOXY PRODUCTS

EPIWELD[®] C-200

MASTER FORMAT: 03 31 20



Cautions

EPIWELD® C-200 is a chemically cured coating that will set up in the container after the two components have been mixed if it is not used within pot life period. See section 4 - Technical Data.

Application

EPIWELD® C-200 like all quality coatings requires top grade workmanship and a good knowledge of the materials and systems of application. A stiff brush, rug type roller, air-type or airless spray equipment may be used for application. Avoid the use of nylon or plastic equipment since the solvents used may damage or soften equipment. The following equipment has worked well.

Brush: 4" (101.6mm) wide brush with short hair bristles OR Roller: 7" to 14" (177.8mm to 355.6mm) length with short-nap mohair (rug type) cover.

Airless Spray:

- Pump** - Graco Bulldog (30:1) or comparable
- Line Pressure** - 70 to 90 PSI (0.48-0.62MPa)
- Tip** - 23 to 29 mil
- Hose** - 3/8" (9.5 mm) high pressure

Concrete, Aluminum, & Wood Application

Primer Coat - To each 5-gallon (18.9L) unit of properly mixed EPIWELD® C-200 add 2 gallons (7.6L) of lacquer thinner. Add the thinner slowly to the mixed component, box and stir thoroughly. Apply first coat (primer) at the rate of 300 - 500 square feet per gallon (7.4-12.3 m²/L). Thinned material is used for the first coat only. Allow a curing period of 12 to 24 hours and apply two coats non-thinned at the rate of 110 to 120 square feet per gallon (2.7-2.9 m²/L). Allow to cure a minimum of 96 hours (4 days) prior to placing into service.

Steel Application

Apply properly mixed EPIWELD® C-200 in two coats (non-thinned) at the rate of 110 to 120 square feet per gallon (2.7-2.9 m²/L) per coat to a dry thickness of approximately 10 mils per coat. The dry film thickness of two coats applied in this manner should average 16 to 20 mils.

Topcoating

When two coats of EPIWELD® C-200 are required to achieve the recommended film build, the interval between coats should be as short as possible. To insure maximum inter-coat adhesion it is recommended that the second coat be applied as soon as possible after the previous coat is firm. If second coat time schedule is not adhered to, surfaces must be abraded prior to applying second coat.

Spray equipment - Do not allow material to remain in hoses of spray equipment. Release pressure from pressure tank and disconnect material hose. Thoroughly flush hose and spray gun with lacquer thinner and reconnect to tank. Do not repressurize tank until ready to resume work.

Limitations

Although EPIWELD® C-200 can withstand a number of chemicals in immersion conditions, continuous immersion requirements in other chemicals and solutions should be panel tested because of the unpredictable nature of conditions. Apply in good weather when air and surface temperatures are above 50°F (10°C). Surface temperature must be at least 5°F (2.8°C) above dew point. For optimum application properties, bring material to 70-80°F (21.1 - 26.7°C) temperature range prior to mixing and application. Dew or rain on EPIWELD® C-200 while uncured may cause surface blush and may impair its cure and adhesion of subsequent coats. For all applications, do not allow more than 24 hours maximum to elapse between coats. Surfaces must be abraded prior to applying additional coats if maximum recoat time has been exceeded.

Technical Data

Applicable Standards	Properties
Corp of Engineers -200	Color: Black
MIL-P-23236	Gloss: Semi-gloss
Painting Council Spec. SSPC# 16-68T	Volume Solids: 78%
	Mixing Ratio: 4 Parts A to 1 Part B by Volume
	Pot Life: 6 Hours @ 60°F (15.6°C)
	4 Hours @ 75°F (23.9°C)
	2 Hours @ 90°F (32.2°C)
	Film Build: 8-10 mils dry 11 to 14 mils wet
	Dry Time: 4 Hours at 70°F (21.1°C) 50% Humidity

Coverage

90 square feet per gallon (2.2 m²/L) at 16 mils dry, 22 mils wet film over smooth surface. Actual coverage will depend on surface porosity and profile. Required minimum coverage for Corp of Engineers C-200 specification is not less than 16 mils dry. Dry films in excess of 40 mils are not recommended.

Clean-Up

Clean all tools and equipment immediately after use with lacquer thinner. Do not allow epoxy to harden on tools or equipment.

First Aid

Avoid breathing possible fumes, mists and vapors that can cause severe respiratory damage. Use of NIOSH approved breathing apparatus is required for more than minimal exposure. Always work in areas with adequate ventilation to allow dissipation of amines and other chemical fumes, and where applicable, solvent fumes. Use of goggles, protective garments, rubber gloves, protective creams is required. If material gets into eyes, flush thoroughly with clean water for (20) minutes; then seek medical treatment. Avoid skin contact. Material can cause contact dermatitis. Always wash exposed areas immediately, using warm water and soap, followed by rinsing with clean water. Observe all safety precautions. It is important when using solvent-based materials or solvents to keep away from open flame or ignition source.

KEEP OUT OF REACH OF CHILDREN. FOR INDUSTRIAL USE ONLY.