BLOME INTERNATIONAL

Surrounding You with Exceptional Protection

CHEMICAL PROOFING SYSTEMS

CP-926 (R590)
High Strength Penetrating Epoxy Underlayment

PRODUCT DESCRIPTION

Blome CP-926 Epoxy Underlayment is a three component epoxy-based underlayment using Blome's R590 Epoxy system. CP-926 will cure and bond to clean, cured, properly prepared concrete. Its surfaces penetration and fast cure capability makes it ideal for quick turn around projects where time quick cure is required. CP-926 is especially suited for use in dairy and food plant applications requiring sanitary flooring with good chemical resistance.

Blome CP-926 is formulated specifically for use in the Food, Beverage, and Pharmaceutical manufacturing areas where strong chemical service is expected. The material exhibits excellent bond strength to concrete and outstanding physical properties.

TYPICAL USES

Blome CP-926 is suitable for smoothing, leveling or sloping concrete slabs before the installation of Blome chemical resistant flooring systems. CP-926 is compatible with most epoxy coatings and linings, unlike latex-based underlayment systems. Blome Primer-71 secondary bonding agent must be used in conjunction with vinyl ester coatings and linings.

HANDLING CHARACTERISTICS

Blome CP-926 offers excellent mixing, troweling and handling characteristics. The resin and hardener are conveniently formulated for a 4:1 volumetric mix ratio. It develops strength quickly and is ideal for projects requiring a fast turn-around time. CP-926 can be applied at a wide range of thicknesses. For applications exceeding 2", up to 25% clean, coarse aggregate (1/8 – 1/4") can be added.

TYPICAL PROPERTIES

WET

Components: Three (3) - Resin, Hardener & Aggregate

Mix Ratio: 1 x 60 lb bag aggregate for each gallon of resin-hardener mix.

Wet density: 130 lbs./ft^3

Pot life: 50°F 65 – 75 minutes

77°F 25 – 35 minutes

Initial set: 50°F 8 – 10 hours

77°F 4 – 5 hours

Minimum cure before installation of lining: 8 – 16 hours, depending on temperature and type of lining to be installed

CURED

Water Absorption (ASTM C-413):	< 0.1%
Adhesion to concrete (ASTM C-321):	Concrete failure
Coefficient of Thermal Expansion (ASTM C-531):	15 - 17 x 10^{-6} in/in/^{o}F
Color:	Natural, Gray
Compressive Strength @ 77°F (ASTM C-579):	
5-6 hours -	1,000 psi
18 hours -	7,800 psi
24 hours -	9,500-11,500 psi
Ultimate -	14,160 psi
Tensile Strength @ 77°F, 7 days (ASTM C-307):	7,500 psi
Flexural Strength @ 77°F, 7 days (ASTM C-580):	5,650 psi
Shrinkage (ASTM C-531)	< 0.05%

PACKAGING & STORAGE

Blome CP-926 is mixed as a three (3) component product, with Resin, Hardener and Aggregate (20-40 mesh sand). CP-926 Resin (Part A) is packaged in 33-lb pails or 5 gallon pails. CP-926 Hardener (Part B) is packaged in 7.0-lb cans or 5 gallon pails. CP-926 Aggregate filler (Part C) is available in 60-lb bags or 100-lb bags.

Unit Size:	280 LB (2.2 cu. ft.)
Resin:	33 LB Pail
Hardener:	7 LB Can
Aggregate:	4 x 60 LB*
Coverage:	26 sq. ft. @ 1” thickness

Unit Size:	1,740 LB (13.4 cu. ft.)
Resin:	4 x 5 Gallon Pails
Hardener:	1 x 5 Gallon Pail
Aggregate:	25 x 60 LB*
Coverage:	160 sq. ft. @ 1” thickness

Shelf life for CP-926 components is twenty-four (24) months if stored below 70°F at 50% relative humidity. Keep CP-926 components tightly sealed in original containers until ready for use. Store components in a cool, dry place, out of direct sunlight and on pallets at temperatures between 50°F–80°F. Protect bags of aggregate from water and weather while in storage and on job site.

ESTIMATED COVERAGE

One 280 LB (2.2 cu. ft.) mix of CP-926 covers approximately 26-ft^2 at 1” thickness. A 1,740 LB (13.4 cu. ft.) unit will cover approximately 160-ft^2 at 1” thickness. These are estimated coverage rates, and they do not allow for waste or other job site contingencies.

*Filler amounts can be varied up to 10% for desired mix consistency. For thicknesses over 2”, substitute up to 25% clean, coarse sand (1/8 – 1/4”).

BID SPECIFICATION GUIDE

Use Blome CP-926 (R590) Epoxy Underlayment as manufactured by Blome International, O'Fallon, MO.

JOB SITE ENVIRONMENTAL CONDITIONS

Blome CP-926 must be applied while ambient temperatures are between 50°F and 90°F. Blome CP-926 components and substrate temperatures must also be maintained in this range. Any water, surface moisture or dampness shall be removed prior to the installation of CP-926.

SURFACE PREPARATION

Concrete should be adequately cured, possess adequate integrity and not be expelling excess water of hydration. A rule of thumb for cure of new concrete is 28 days cure at 70°F but that is not an assurance that the concrete has achieved adequate physical properties. Concrete should exhibit a compressive strength of 3,000 psi minimum and tensile strength of 300 psi or higher.

Ground slabs and new concrete should be tested for excess moisture in accordance with ASTM D 4263 Plastic Sheet Test Method; any water on the backside of the sheet after overnight exposure will require additional curing before underlayment can be applied.

We recommend utilization of a low water-cement ratio, preferably in 0.35-0.38 range and adequate super-plasticizers for placement are recommended, particularly when cure time to coat is critical.

New concrete must also be free of curing compounds, form release agents and any other contamination that might inhibit adhesion. Old concrete must be free of existing coatings or toppings and any loose or unsound concrete must be removed.

All concrete must be cleaned, as necessary, in accordance with ASTM D 4258. The resultant surface should be free of all oil, grease, and other contamination. Consult Blome International for special procedures for oil contaminated surfaces.

Upon completion of cleaning, the concrete surface shall be prepared in accordance with ASTM D4259. The resultant surface should be free of laitance and efflorescence and have a surface texture similar to medium (60-80 grit sandpaper).

SAFETY PRECAUTIONS

Blome CP-926 Resin, Hardener, Aggregate, and mixes of them present various health hazards if handled improperly. 20-40 Mesh Sand may contain silica dust, CP-926 Resin and Hardener will cause eye injury and irritate skin. Wear respirator suitable for silica dust, safety glasses with side shields, gloves and long sleeve shirts to prevent all contact with skin and eyes. After working with Blome CP-926, wash thoroughly before eating, drinking, smoking or other activities.

PRIMING

Prime concrete with CP-926 Resin and Hardener before placing underlayment. Alternately, Blome Primer-75 can be used for dry areas or where green (damp) concrete primer is required.

Apply primer with a brush or roller and ensure that excess primer does not form puddles in any areas. Apply at a rate of 150-200 sq. ft. per mixed gallon. Underlayment can be applied on wet primer.

APPLICATION EQUIPMENT

Blome CP-926 is best mixed with a KOL, pail-type mixer or in a pail using a drill motor driven paddle blade. A paddle type mortar mixer is recommended when mixing large units. This mixing equipment must be clean, dry and free of any contaminants including Portland cement, other mortars or resins.

MIXING AND APPLICATION

For each 1.25 gallon mix of resin and hardener: Mix together one gallon can Resin (Part A) and 0.25 gallon (Quart) can Hardener (Part B) and blend thoroughly for 1-2 minutes. To this mixture, add up to 75-lbs CP-926 Aggregate (60-lbs per mixed gallon liquids), and mix to a uniform consistency. Mix components using a clean, dry mechanical mixer for a minimum of 1- 2 minutes, making sure there are no lumps or dry pockets of powder. The amount of powder may be adjusted, up or down, to achieve desired consistency for specific uses. More sand will produce a stiffer underlayment consistency. For applications greater than 2", add up to 25% coarse sand (1/8-1/4") to the mix.

Pour the mixed CP-926 Epoxy Underlayment onto the primed concrete. Screed the material evenly using a sawing or back and forth motion. The underlayment must be tightly compacted. Finish surface with a trowel, as needed.

CLEANUP

All tools, mixing equipment, gloves and application equipment should be cleaned up immediately using a citrus or biodegradable cleanser, with hot water, while material is still wet. If material begins to cure, solvent based cleaners will be required for removal.

WARRANTY

We warrant that our goods will conform to the description contained in the order and that we have good title to all goods sold. Our material data sheets and other literature are to be considered accurate and reliable, but are used as guides only. WE GIVE NO WARRANTY OR GUARANTEE, WHETHER OF MERCHANT ABILITY OR FITNESS OF PURPOSE OR OTHERWISE, AND WE ASSUME NO LIABILITY IN CONNECTION THEREWITH. We are happy to give suggestions for applications; however, the user assumes all risks and liabilities in connection therewith regardless of any suggestion, we may give. We assume no liability for consequential or incidental damages. Our liability, in law and equity, shall be expressly limited to the replacement of non-conforming goods at our factory, or at our sole option, to repayment of the purchase price of the non-conforming goods.

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Supersedes all previous literature