BLOME INTERNATIONAL

Surrounding You with Exceptional Protection™

CHEMICAL PROOFING SYSTEMS

CP-85SB
Epoxy Slurry-Broadcast System

PRODUCT DESCRIPTION

Blome CP-85SB is a three-component, epoxy slurry broadcast system used for the construction of chemical resistant floors. It may be used for renovating old concrete floors and as a topping for new concrete floor protection. CP-85SB is specially designed for fast installation in areas requiring quick turnaround. CP-85SB exhibits superior resistance to strong mineral acids including 50% sulfuric, 20% hydrochloric, as well as resistance to sodium hydroxide, alkaline cleaners, and bleach-based sanitizers (at use concentrations). It is also resistant to fuels, fats, oils and some solvents. CP-85SB is capable of withstanding heavy fork lift and truck traffic, impact, and abrasion due to its outstanding durability. The material exhibits excellent bond strength to concrete and physical properties at least 4 times that of standard concrete.

CP-85SB can be applied as a reinforced system. Consult Blome International for additional details.

TYPICAL USES

Blome CP-85SB Novolac Epoxy Slurry Broadcast is suitable for use in a variety of applications including:

- Truck unloading pads
- Chemical process flooring
- Food, beverage and dairy plant flooring
- Pharmaceutical processing areas
- Clean rooms

HANDLING CHARACTERISTICS

Blome CP-85SB is placed by mixing the resin and hardener with a specially graded filler designed to promote flow to a pre-determined thickness. CP-95SB can be mixed and placed ranging from a loose slurry (144-lbs aggregate) to a stiff slurry (180-lbs aggregate). Broadcast sand is immediately placed on this layer, and the system is topped with additional CP-85SB Resin and Hardener. Blome CP-85SB cures rapidly, offering quick turnaround with minimal downtime for maintenance and new construction applications. Blome CP-85SB is moisture-tolerant can be applied to less-than-ideal substrates.

TYPICAL PROPERTIES

WET

Components	Three (3) Resin, Hardener & Aggregate
Wet density (slurry)	115 lbs./ft^3
Mixed consistency	Flowable slurry system
Pot life	50°F 60 minutes
	77°F 40 minutes
Initial set (foot traffic/to top coat)	50°F 8 - 10 hours
	77°F 4 - 6 hours
Ultimate cure	50°F 7 days minimum
	77°F 5 days minimum

CURED

Water Absorption (ASTM C-413)	<0.1%
Shrinkage	<0.2%
Bond Strength to concrete	Concrete failure
Bond Strength to quarry tile	Tile failure
Coefficient of thermal expansion (ASTM C-531)	14 x 10^{-6} in/in/^{o}F
Standard Colors	Gray, red
Compressive Strength (ASTM C-579)	14,000 – 14,250 psi
Tensile Strength (ASTM C-307)	4,500 – 4,750 psi
Flexural Strength (ASTM C-580)	3,200-3,400 psi

PACKAGING, COVERAGE & STORAGE

Blome CP-85SB is supplied as a three (3) component product, with a Resin, Hardener and Aggregate. CP-85SB Components are packaged as follows:

Packaging:

Component	Size
Resin (Part A)	24 lbs. (2.4 gal) (1 x 24 lb. pail)
Hardener (Part B)	10 lbs. (1.2 gal) (1 x 10 lb. can)
Aggregate (Part C)	180 lbs. (3 x 60 lb. bags)
Unit Size (stiff slurry)	1.8 cu ft/214 lbs
Unit Size (loose slurry)	1.5 cu ft/178 lbs

Coverage:

Component	Coverage
Primer 75	150 – 200 sq. ft./gal
Unit Yield (stiff slurry)	1.8 cu ft. (214 lbs.)
Coverage/Unit (stiff slurry)	86 sq. ft. @ ¼"
Unit yield (loose slurry)	1.5 cu ft. (178 lbs.)
Coverage/Unit (loose slurry)	72 sq. ft. @ ¼"
Broadcast Sand	1-2 lbs./sq. ft.
CP-95 SB Topcoat (R&H)	80-100 sq. ft./gal

Note – Primer 75 may be reinforced with 1-1.5 oz CSM

Mix Ratios:

Component	Ratio
Primer 75	2:1 (by volume)
CP-85SB Resin:Hardener	2.4:1 (by weight)
CP-85SB Resin:Hardener	2.0:1 (by volume)
CP-85SB Filler:Liquid	4.1:1 (by weight)*
CP-85SB Filler:Liquid	2.5:1 (by volume)*

*Adjust for desired flowability

Shelf life for CP-85SB components is one (1) year. Keep CP-85SB 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 CP-85SB Aggregate from water and weather while in storage and on job site.

BID SPECIFICATION GUIDE

Use Blome CP-85SB Novolac Epoxy Slurry Broadcast as manufactured by Blome International, O'Fallon, MO.

ENVIRONMENTAL CONDITIONS

Blome CP-85SB must be applied while ambient temperatures are between 50°F and 90°F. Blome CP-85SB components and substrate temperatures must also be maintained in this range. For best results, store CP-85SB components at 75°F minimum, for 24 – 36 hours prior to installation. Installations of CP-85SB should be protected from water and weather during installation and curing.

SURFACE PREPARATION

Concrete must be adequately cured, structurally sound and dry. It must be free of dirt and contaminates and all defects should be repaired. All loose coatings must be removed. Concrete must be dry in accordance with ASTM D 4263 Plastic Sheet Test Method. Concrete surfaces must be free of all laitance, oil, curing compounds, and any dust or other loose materials prior to installation of materials. Concrete must be etched or roughened by abrasive blasting, shot blasting, grinding or in some instances, it may be acid etched. Check with Blome International for optional recommendations.

Concrete substrates to which Blome CP-85SB will be applied should be primed using Blome 75 Epoxy Primer prior to installation of CP-85SB slurry broadcast. Apply Blome 75 to prepared concrete substrates using brush or roller, making certain to work primer into the pores of the concrete. Allow primer to cure until tacky or until the next day prior to installation of CP-85SB slurry broadcast.

SAFETY PRECAUTIONS

Blome CP-85SB Resin, Hardener, Aggregate, and mixes of them present various health hazards if handled improperly. CP-85SB Aggregate contains silica dust, CP-85SB Resin will cause eye injury and irritate skin and CP-85SB Hardener is a corrosive liquid. 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-85SB, wash thoroughly before eating, drinking, smoking or other activities.

APPLICATION EQUIPMENT

Blome CP-85SB is best mixed with a low speed, paddle type mortar mixer or in a pail using a drill motor driven paddle blade. All mixing and application equipment must be clean, dry and free of any contaminants including Portland cement, other mortars or resins. When mixed, CP-85SB is transferred to placement area using a clean, dry wheelbarrow or buckets. CP-85SB is spread into place using a clean, dry pin (gauge) rake, notched trowel, steel trowel or float to reach desired thickness. A spiked roller or loop roller is used to remove trowel marks and surface imperfections.

MIXING AND APPLICATION

Mix Resin (Part A) and Hardener (Part B) together with a drill motor driven paddle mixer and blend thoroughly for 1-2 minutes. Pour this mixture into a low-speed paddle type mixer or pail mixer and turn the mixer on. Add Aggregate (Part C) to the mixer and mix to a uniform slurry consistency. Mix for 1-2 minutes minimum, making sure there are no lumps or dry pockets of powder on the paddles or in corners or sides of mixer. The amount of aggregate may be adjusted slightly, up or down, to achieve desired flowability. More aggregate will reduce the flow for areas with steeper slopes (near drains for example). Less aggregate will give better flow and self-leveling properties.

Pour mixed slurry onto primed concrete and spread with a pin/gauge rake or steel trowel, and spread to a nominal 1/4” average thickness. Ensure a minimum thickness of 3/16”.

Lightly roll the surface with a spiked roller or loop roller to remove imperfections or trowel marks.

Broadcast silica sand onto the wet surface of the slurry within 5-10 minutes of completing the previous step. Use 20-40 mesh sand or sand of the desired coarseness to refusal (approximately 1 lb. per sq. ft.) Allow to cure and sweep off excess sand before continuing.

Top coat with CP-85SB Resin/Hardener.

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.

Revision: October 14, 2020