

## **Blome CP-83MP Epoxy Adhesive / Mortar**

### **PRODUCT DESCRIPTION**

Blome CP-83MP is a two-part, epoxy adhesive/mortar used for the installation of abrasion resistant brick and tile linings. CP-83MP is designed for bonding alumina ceramic and basalt tile in lining applications requiring resistance to abrasion and erosion, as well as acids, bleaches, alkalis, solvents, and other corrosive chemicals. CP-83MP is especially suited for use in wear tile applications requiring high bond strength, physical properties, and good chemical resistance. When used as a tile adhesive, CP-83MP is resistant to temperatures up to 300 °F. Blome CP-83MP is resistant to caustic solutions, most dilute acids, hypochlorite bleaches and other harsh chemicals. The material is also well suited for use as concrete repair putty for filling form voids, crack repair and other concrete applications requiring high physical properties. CP-83MP bonds excellently to steel and stainless steel substrates.

### **TYPICAL USES**

Blome CP-83MP is suitable for bonding brick, tile, concrete and steel surfaces in a variety of applications including:

- Chutes, Hoppers and Troughs
- Slurry Pipe Linings
- Pulverizers, Ball Mills and Classifier Cones
- Concrete Crack Repair and Form Void Filling

### **HANDLING CHARACTERISTICS**

Blome CP-83MP offers excellent trowelling and handling characteristics, with sufficient body and thixotropy to butter brick in place and secure them from slipping or sliding while the mortar cures. CP-83MP cures rapidly and provides an excellent bond to brick, tile and steel. This unique formulation produces excellent results while installing brick in horizontal, vertical and even overhead areas.

### **TYPICAL PROPERTIES**

#### **WET**

Components:	Two (2) - Resin & Hardener
Wet mortar density:	11 lbs. per gallon
Yield per 2-gal unit:	0.25 cu. ft.
Mixed consistency:	Creamy mortar
Pot life:	50°F 60 minutes 77°F 30 - 40 minutes
Initial set:	50°F 4 - 6 hours 77°F 1 - 2 hours
Final cure	50°F 7 days minimum 77°F 5 days minimum

## CURED

Absorption (ASTM C-413)	0.24%
Bond Strength to Cermaic Tile (Positester AT)	2,700 - 3,200 psi
Bond Strength to steel (20 mm pull PosiTester AT)	2,600 - 3,000 psi
Coefficient of Thermal Expansion (ASTM C-531)	12 - 14 x 10 <sup>-6</sup> in/in/°F
Color	Off White
Compressive Strength (ASTM C-579)	10,500 psi
Tensile Strength (ASTM C-307)	3,600 - 4,100 psi

## PACKAGING & STORAGE

Blome CP-83MP is supplied as a two (2)-component product, with Resin and Hardener paste components. CP-83MP Resin (Part A) is packaged in one gallon cans; CP-83MP Hardener (Part B) is also packaged in one gallon cans.

Unit Size	Two (2) gallons
Resin	One (1) gallon can
Hardener	One (1) gallon can

Shelf life for CP-83MP components is 12-18 months. Keep CP-83MP 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.

## ESTIMATED COVERAGE

One two-gallon unit of CP-83MP covers approximately 14 ft<sup>2</sup> of tile lining when used as a setting bed for tile with a nominal 1/16" joint thickness between the tile. This is an estimated coverage rate and does not allow for waste, bed or side joint variations, or other job site contingencies.

## BID SPECIFICATION GUIDE

Use Blome CP-83MP Epoxy Adhesive/Mortar as manufactured by Blome International, O'Fallon, MO.

## JOB SITE ENVIRONMENTAL CONDITIONS

Blome CP-83MP is best applied while ambient temperatures are between 50°F and 90°F. Blome CP-83MP components, brick, tile and substrate temperatures must also be maintained in this range. Installations of CP-83MP should be protected from water and weather during installation and curing.

## SURFACE PREPARATION

Steel surfaces intended for lining application must be clean and free of oil, grease, dirt, rust, mill scale, salts, other coatings, corrosion products and other deleterious substances. Welds and weld splatter must be ground smooth. Avoid skip welds. Grind all sharp projections and round all corners to a 1/8" radius. All steel to be lined must be abrasive blasted to white metal finish (NACE no. 1, SSPC SP5) with a 2-4-mil sharp anchor profile. Mask all areas that are not to be lined.

Concrete substrates to which Blome CP-83MP will be applied must have a minimum 28 day cure or have a minimum compressive strength of 3,000 psi. Minimum tensile strength of concrete must be 300 psi when tested using a Schmidt Hammer. Concrete must be dry in accordance with ASTM-4263 Plastic Sheet Test Method. Concrete surfaces must be free of all laitance, previously applied coatings or curing compounds, oil, and any dust or other loose materials prior to installation of CP-83MP bed joint.

Brick and tile to be installed with Blome CP-83MP must be clean, dry and oil free. If brick or tile has been frozen, they must be thawed completely and allowed to dry prior to installation with Blome CP-83MP. Liquid or Sheet applied membrane surfaces should be clean and dry prior to installation of Blome CP-83MP bed joint. These surfaces should be swept clean and be free of dirt, dust, water or other jobsite contaminants.

## **SAFETY PRECAUTIONS**

Blome CP-83MP Resin, Hardener, and mixes of them present various health hazards if handled improperly. CP-83MP Resin will cause eye injury and irritate skin and CP-83MP Hardener is a corrosive. Wear safety glasses with side shields, gloves and long sleeve shirts to prevent all contact with skin and eyes. After working with Blome CP-83MP, wash thoroughly before eating, drinking, smoking or other activities.

## **APPLICATION EQUIPMENT**

Blome CP-83MP is best mixed with a trowel or mixing stick. It may also be mixed with a KOL, pail type mixer or in a pail using a drill motor driven paddle blade. This mixing equipment must be clean, dry and free of any contaminants including Portland Cement, other mortars or resins. When mixed, CP-83MP is applied to brick and substrate with a pointing or margin trowel.

## **MIXING AND APPLICATION**

CP-83MP is mixed at a 1:1 ratio by volume. Mix together equal volumes of Resin (Part A) and Hardener (Part B) and blend thoroughly for 1-2 minutes. The components have slightly contrasting colors; mix these two parts until a uniform color is achieved. Mix components for a minimum of 1-2 minutes, making sure there are no stripes or inconsistencies.

Place brick or tile in wet adhesive mortar in accordance with project specification. When laying brick, use a clean, dry pointing or margin trowel, butter brick or tile evenly on 4 or 5 sides. Slide buttered brick or tile into place, squeezing excess mortar from joints. Strike off excess mortar & remove. Joint thickness should be nominally 1/16".

## **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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