BLOME INTERNATIONAL

Surrounding You with Exceptional Protection™

CHEMICAL PROOFING SYSTEMS

Blome CP-83EN

Epoxy Novolac Adhesive / Mortar

PRODUCT DESCRIPTION

Blome CP-83EN is a two-part, novolac epoxy adhesive/mortar used for the installation of chemical resistant brick and tile linings. CP-83EN is especially suited for use in wear tile applications requiring high bond strength, physical properties and exceptional chemical resistance. Blome CP-83EN is resistant to strong mineral acids including 98% sulfuric, 37% hydrochloric, as well as resistance to caustic solutions, hypochlorite bleaches and dilute oxidizing acids such as 30% nitric and 10% chromic. 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.

TYPICAL USES

Blome CP-83EN is suitable for a variety of applications including:

Steel and Concrete Substrate Repair
Chemically Resistant Trench Lining and Surfacer
Concrete Crack Repair and Form Void Filling
Bonding brick and tile on concrete and steel surfaces

HANDLING CHARACTERISTICS

Blome CP-83EN epoxy novolac offers excellent troweling 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-83EN 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	
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
	77°F	5 days

CURED

Absorption (ASTM C-413)	0.2%
Bond Strength to Ceramic Tile (Positester AT)	2,900 - 3,500 psi
Bond Strength to steel (20 mm pull Positester AT)	2,700 - 3,150 psi
Coefficient of Thermal Expansion (ASTM C-531)	12 - 14 x 10^{-6} in/in/^{o}F
Color	Off White
Compressive Strength (ASTM C-579)	11,500 psi
Tensile Strength (ASTM C-307)	3,600 - 4,200 psi

PACKAGING & STORAGE

Blome CP-83EN is supplied as a two (2)-component product, with Resin and Hardener paste components. CP-83EN Resin (Part A) is packaged in one gallon cans or 5 gallon pails; CP-83EN Hardener (Part B) is also packaged in one gallon cans or 5 gallon pails.

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

Shelf life for CP-83EN components is 12-18 months. Keep CP-83EN 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-83EN covers approximately 14 ft^2 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-83EN Epoxy Novolac Substrate Repair/Filler and Adhesive/Mortar as manufactured by Blome International, O’Fallon, MO.

JOB SITE ENVIRONMENTAL CONDITIONS

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

SURFACE PREPARATION

Steel substrates should be prepared by abrasive blasting or grinding to achieve near white metal clean to SSPC SP-10. Steel should exhibit a nominal 2-4 mil anchor profile. Blasted steel substrates must not be allowed to flash rust prior to installing novolac epoxy adhesive. Concrete substrates to which Blome CP-83EN will be applied must have a minimum 28 day cure or 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-83EN bed joint.

Brick and tile to be installed with Blome CP-83EN 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-83EN. Liquid or Sheet applied membrane surfaces should be clean and dry prior to installation of Blome CP-83EN bed joint. These surfaces should be swept clean and be free of dirt, dust, water or other jobsite contaminants.

SAFETY PRECAUTIONS

Blome CP-83EN Resin, Hardener, and mixes of them present various health hazards if handled improperly. CP-83EN Resin will cause eye injury and irritate skin and CP-83EN 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-83EN, wash thoroughly before eating, drinking, smoking or other activities.

APPLICATION EQUIPMENT

Blome CP-83EN 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-83EN is applied to brick and substrate with a pointing or margin trowel.

MIXING AND APPLICATION

CP-83EN 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.

Printed: July 15, 2012
Supersedes all previous literature