BLOME CP-11M/HAR
Halogen-Free Modified Silicate Mortar

PRODUCT DESCRIPTION

Blome CP-11M/HAR is a single component, halogen-free Modified Silicate mortar used for the installation of chemical and abrasion resistant brick and tile linings. Blome CP-11M/HAR utilizes a unique halogen-free hardening system that exhibits good resistance to water and vapor conditions, as well as excellent resistance to all concentrations of all acids (except HF) including 98% sulfuric, oleum, 70% nitric, and acid/solvent solutions. Blome CP-11M/HAR is resistant to sulfation/hydration mortar joint deterioration that occurs in wet/dry acid vapor environments and withstands temperatures to 1,700°F

TYPICAL USES

Blome CP-11M/HAR is suitable for bonding chemical and abrasion resistant masonry units in a variety of applications including:

1. Acid absorption towers and acid pump tanks
2. Spent acid storage tanks
3. Linings for incineration systems and scrubbers
4. Installations requiring water resistance where many silicates fail
5. Abrasion resistant tile linings exposed to strong, wet acid environments

HANDLING CHARACTERISTICS

Blome CP-11M/HAR offers excellent trowelling and handling characteristics, with sufficient body and thixotropy to bed tile in place and secure them from slipping or sliding while mortar cures. CP-11M/HAR is a single component product that is easily mixed with water when used. CP-11M/HAR utilizes a unique hardening system that cures rapidly and provides a superior bond to brick and tile.

TYPICAL PROPERTIES

WET

Components:		One (1) – powder
Wet mortar density:		129 lbs./ft^3
Mixed consistency:		Creamy mortar
Pot life:	50°F	50 minutes
	77°F	25 - 35minutes
Initial set:	50°F	20 hours
	77°F	8 hours
Final cure	50°F	14 days minimum
	77°F	10 days minimum

CURED

Blome CP-11M/HAR Complies with ASTM C-466

Bond Strength to brick (ASTM C-321)	345 psi
Coefficient of Thermal Expansion (ASTM C-531)	7.3 x 10-6 in/in/°F
Color	tan/off white
Compressive Strength (ASTM C-579)	3,500 – 3,900 psi
Recommended pH for use	0.0 – 7.0
Temperature limit	1,700°F
Tensile Strength (ASTM C-307)	565 psi

PACKAGING & STORAGE

Blome CP-11M/HAR is supplied as a single component, dry powder product that is mixed with water at the time of use to reach a trowellable mortar consistency. Blome CP-11M/HAR Powder is packaged in 50 lb. bags.

Shelf life is six (6) months at 70°F and 50% relative humidity. In high humidity environments shorter shelf life should be expected. If CP-11M/HAR powder begins to harden or lump in bags, be certain to break up all softer lumps of material prior to use. Material that is beyond shelf life will harden in bags and should be discarded.

Keep CP-11M/HAR Powder tightly sealed in original containers until ready for use. Store in a cool, dry place, on pallets at temperatures between 50°F - 90°F. If powder is stored in high humidity, shelf life will be reduced.

ESTIMATED COVERAGE

Please refer to Blome Brick Mortar Usage Chart in Chemical Proofing Section of Blome International Catalog. This chart gives estimated coverage rates and does not allow for waste, joint variations or other jobsite contingencies.

BID SPECIFICATION GUIDE

Use Blome CP-11M/HAR Halogen-Free Modified Silicate Mortar as manufactured by Blome International, O'Fallon, MO.

JOB SITE ENVIRONMENTAL CONDITIONS

Blome CP-11M/HAR must be applied while ambient temperatures are between 50°F and 90°F. CP-11M/HAR components, brick, tile and substrate temperatures must also be maintained in this range. It is critical that installations of CP-11M/HAR be protected from water and weather during installation and curing. Curing rates can be accelerated by elevating temperatures during installation and while curing.

SURFACE PREPARATION

Brick and tile to be installed with Blome CP-11M/HAR must be clean, dry and oil free. If brick or tile has been frozen, they must be thawed completely and dried prior to installation with Blome CP-11M/HAR. Applications on steel substrates should be installed over clean, blasted and oil free steel substrates. Steel substrates must be abrasive blasted to achieve a commercial blast profile.

SAFETY PRECAUTIONS

Blome CP-11M/HAR Powder, and mixes of it with water, presents various health hazards if handled improperly. CP-11M/HAR Powder contains silica dust and when mixed, CP-11M/HAR mortar is an alkaline solution that will severely burn eyes 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-11M/HAR, wash thoroughly before eating, drinking, smoking or other activities.

APPLICATION EQUIPMENT

Blome CP-11M/HAR is best 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, resins, etc. When mixed, CP-11M/HAR is applied to brick, tile & substrate with pointing or margin trowel.

MIXING AND APPLICATION

1. Add approximately 6.0 parts by weight CP-11M/HAR Powder to 1.0 part by weight water.
2. Do not overwet mixed mortar, when water is initially mixed with powder, mix will appear too dry. Continue mixing for 1-2 minutes and mortar will “wet out” to creamy consistency.
3. Mix using a clean, dry mechanical mixer for a minimum of 1-2 minutes, making sure there are no lumps or dry pockets of powder.
4. Using 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 and striking off.
5. Maximum mortar joint thickness should be 1/8”.

CLEANUP

All tools, mixing equipment, gloves and application equipment should be cleaned up immediately using hot, soapy water. Any material that is allowed to cure prior to clean up should be chiseled or chipped off, then dirty items should be soaked in hot, soapy water overnight and then cleaned and dried.

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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