EBM-Lite™ Premium Epoxy Bonding Mortar – 100% Solids

1. Product Name

EBM-Lite™ Premium Epoxy Bonding Mortar – 100% Solids

2. Product Description

Three-component, 100% solids epoxy mortar system for installation where chemical resistance, impact resistance and high-strength are a necessity. Non-sag and non-slump for large format tiles on floors and walls. Formulated to be 30% lighter than other epoxy mortars.Handles like a cement-based mortar with the performance of an epoxy. Formulated with recycled material, contributing to LEED® points.

Key Features

- High impact and chemical resistance
- Excellent for installing moisture sensitive and resin-backed stone
- Same coverage area as standard epoxy
- Exceeds ANSI A118.3

Suitable Substrates

- For floor and wall installations
- For interior and exterior use
- Industrial, commercial and institutional applications with extremely high mortar strength requirements
- High traffic areas such as airports and shopping malls
- Applications requiring high acid and chemical resistance such as dairies, breweries, bottling plants, bakeries, meat packing plants, pharmaceutical plants and animal hospitals
- Concrete, masonry, plaster
- Gypsum wallboard (dry areas)
- Exterior Grade Plywood (interior dry areas)
- Properly prepared existing ceramic tile
- Properly prepared sheet vinyl, VCT
- Properly prepared existing plastic laminate
- Properly prepared bare carbon steel
- Properly prepared cutback adhesive
- Properly prepared fiberglass
- Properly prepared metal
- Liquid applied waterproofing membranes such as RedGard® and Custom® 9240

Composition of Product

Epoxy resin and hardeners blended with inorganic fillers

Limitations to the Product

- Do not bond directly to hardwood, Luan plywood, particle board, parquet, cushion or sponge-back vinyl flooring, plastic and OSB panels.
- Epoxy mortar should not be used to level the floor. When used as a medium bed mortar, thickness should not exceed 3/4" (19 mm) after tiles have been beaten in.
- When setting glass tile over 6" x 6" (15 x 15 cm) contact Technical Services for recommendations.
- When setting dimensional stone 12" x 12" (30 x 30 cm) or larger, contact Technical Services for recommendations regarding subfloor deflection requirements.
- Temperature will affect the working time of EBM-Lite™. Hot weather will accelerate curing and shorten working time. Cold weather will slow curing and extend working time. Surface temperatures for installation should be between 50°F (10°C) and 90°F (32°C).
- Not recommended in some manufacturing facilities where heavy solvents are used. Consult Technical Services on questionable installations.
- Not recommended for mortar in areas with high moisture vapor emission or for a full building envelope application (ie: entire exterior building veneer).

Packaging

Part A 68 fl. oz. (2 L) bottle Part B 32 fl. oz. (.9 L) bottle Part C 14.4 lb (6.5 kg) bag

3. Technical Data

Applicable Standards

Detailed installation procedures and use of epoxy mortars may be found in the TCNA Handbook under F-113, F-114, F-115, F-116, F-125, F-128, F-143, F-131, F-132, F-134, F-135, F-200, F-205, TR-711 and TR-712. Conforms to requirements for chemical-resistant, water cleanable tile setting epoxy found in ANSI A108.6 and ANSI A118.3.

Technical Chart

Property	Test Method	Requirement	Typical Results
Pot Life			1 hour
Open Time			45 minutes
Water Cleanability	A118.3 Section 5.1	Cleanable at 80 minutes	Pass
Shear Bond Strength at 28 Days			
Porcelain Tile			1000 psi (70.3 kg/cm²)
Quarry Tile to Plywood	A118.3 Section 5.5	> 1000 psi	1200 psi (84.3 kg/cm²)
Compressive Strength	A118.3 Section 5.6	> 3500 psi	4000 psi (281.2 kg/cm²)

Environmental Consideration

Custom® Building Products is committed to environmental responsibility in both products produced and in manufacturing practices. Use of this product can contribute towards LEED® v3 certification:

- Up to 2 points towards MR Credit 5, Regional Materials
- Up to 2 points towards MR Credit 4, Recycled Content
- Up to 1 point towards IEQ Credit 4.1, Low-Emitting Materials - Adhesives & Sealants

4. Instructions

General Surface Prep

USE CHEMICAL-RESISTANT GLOVES, such as nitrile, when

EBM-Lite™ Premium Epoxy Bonding Mortar – 100% Solids

handling product.

Surfaces must be structurally sound, clean, dry and free from grease, oil, dirt, curing compounds, sealers, adhesives or any other contaminant that would prevent a good bond. Glossy or painted surfaces must be sanded, stripped and cleaned of waxes, dirt or any contaminants. Concrete must be cured 28 days and accept water penetration. Concrete must be free of efflorescence and not subject to hydrostatic pressure. Concrete slabs should have a broomed or brushed finish to enhance the bond. Plywood flooring including those under resilient flooring must be structurally sound and meet all ANSI and deflection requirements. For questions about proper subfloor installation, call Technical Services. Sheet vinyl must be well-bonded and stripped of old finish. Roughen the surface by sanding or scarifying, rinse and allow to dry. Expansion joints should never be bridged with setting material. Do not sand flooring materials containing asbestos. Ambient temperature, surfaces and materials should be maintained at a temperature above 50° F (10° C) or below 90° F (32° C) for 72 hours.

Bonding to Plywood and OSB Surfaces

Plywood floors, including those under resilient flooring, must be structurally sound and must meet all ANSI A108.01 Part 3.4 requirements. See TCNA F150. For questions about proper subfloor installation, call Custom® Building Products.

Bonding to Cutback Adhesive

Adhesive layers must be removed as they reduce mortar bond strength to cement surfaces. Use extreme caution as adhesives may contain asbestos fibers. Do not sand or grind adhesive residue, as harmful dust may result. Never use adhesive removers or solvents, as they soften the adhesive and may cause it to penetrate into the concrete. Adhesive residue must be wet-scraped to the finished surface of the concrete, leaving only the transparent staining from the glue. Do a test bond area first, to determine desirable results. Refer to the RFCI Pamphlet, "Recommended Work Practices for Removal of Resilient Floor Coverings", for further information.

Movement Joint Placement

Expansion joints, control joints and cold joints should never be bridged with setting material. They must be brought through the tile work and filled with an appropriate elastomeric sealant.

Mixing Procedures

Empty entire contents of Part A and Part B into clean mixing container and mix thoroughly. Gradually add Part C powder into pre-mixed liquids. Mix with a mechanical mixer. Mix for up to 5 minutes until a smooth trowelable consistency is obtained. Do not overmix or entrap air into mixture. This will shorten pot life and weaken the product.

Application of Product

INSTALLATION TO CONFORM TO ANSI A108.4 and A108.6. Use a properly-size notch trowel to ensure proper coverage under tiles. Using flat side of trowel, apply skim coat of mortar to the surface. Apply additional mortar with notched side of trowel held at a 45° angle to the surface, combing in one direction. Press tile firmly into place in a perpendicular motion across ridges, moving back and forth. Perpendicular pressing flattens ridges and closes valleys allowing maximum coverage. Adjust tile promptly and beat in with a beating block and rubber mallet. Thickness should not exceed 3/4" (6 mm) after tiles have been beaten in. Periodically pull up a tile and check the back to ensure complete coverage with the adhesive. Do not trowel out more epoxy than can be covered in 10 minutes. Thicknesses greater than 1/4" (6 mm) will generate excessive heat and shorten working time. Do not attempt to work more than one unit at a time. Larger units may require a two or three person crew to spread or clean. If epoxy loses tack, remove and replace with fresh epoxy. If epoxy mortar gets on the face of the tile, clean with warm water and sponge before it sets.

Curing of Product

Ambient and surface temperatures as well as temperature of the material will affect the cure time of the epoxy. Allow to cure a minimum of 16 hours at temperatures above 70°F (21°C) and 72 hours at temperatures between 60°F and 70°F (16°C and 21°C) before grouting. Generally, light foot traffic can be allowed in 16 hours, normal foot traffic in 24 hours and heavy foot traffic in 72 hours.

Cleaning of Equipment

Epoxy must be cleaned from tools with water quickly after application. Do not allow epoxy to cure on surface of tile.

Storage

Keep from freezing.

Health Precautions

WARNING: Powder contains free silica. DO NOT breathe dust. Dust can irritate eyes and may cause delayed lung injury (Silicosis). Wear a dust mask and rubber gloves when handling. Provide adequate ventilation. Keep containers closed tight when not in use. Handle carefully to keep dust to a minimum. In case of spillage, sweep up and discard. After using, wash hands thoroughly with soap and clean water before eating, drinking or smoking. If affected by inhaling large amounts of dust, remove victim to fresh air. If eyes are irritated, flush with clean water. CORROSIVE. KEEP OUT OF REACH OF CHILDREN. DO NOT TAKE INTERNALLY.

5. Size & Availability

Item Code	Size	Color	Package
EBML	Setting Unit:		Pail
	68 fl. oz. (2 L) A	Clear Liquid	Bottle
	32 fl. oz. (.9 L) B	Amber Liquid	Bottle
	14.4 lb (6.5 kg) C	Off White Powder	Bag

6. Product Warranty

EBM-Lite™ is also eligible for Custom's® Lifetime Warranty. Custom® Building Products warrants to the original consumer purchaser that its product shall be free from defects in material and workmanship under normal and proper usage for a period of one year following the date of original purchase. Custom's® sole liability under this warranty shall be limited to the replacement of the product. Some states, countries or territories do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you. This warranty will not extend to any product which has been modified in any way or which has not been used in accordance with Custom's® printed instructions. Custom® makes no other warranties either expressed or implied. This warranty gives you specific legal rights, and you may have other rights that vary from state to state or from one country/territory to another. For details and complete warranty information, visit /reference-library/warranties.aspx

7. Product Maintenance

Properly installed product requires no special maintenance.

EBM-Lite™ Premium Epoxy Bonding Mortar – 100% Solids

8. Technical Services Information

For technical assistance, contact Custom® Building Products.

9. Filing System

Additional product information is available from the manufacturer upon request.

Coverage Chart

SQUARE FOOT COVERAGE PER 1.9 GALLON UNIT (SQUARE METER PER 7.2 L UNIT) Chart for estimating purposes. Coverage may vary based on installation practices and jobsite conditions. For more trowel sizes, please use the material calculator at CustomBuildingProducts.com or contact CUSTOM Technical Services at (800)282-8786.

Trowel Size	Min Coverage	Max Coverage
1/4" x 1/4" x 1/4" (6 x 6 x 6 mm) Square-Notch	50 sq. ft. (4.6 M²)	55 sq. ft. (5.1 M²)
1/4" x 3/8" x 1/4" (6 x 9.5 x 6 mm) Square-Notch	35 sq. ft. (3.3 M²)	40 sq. ft. (3.7 M²)

Mortar coverage between the substrate and tile underside is required to be ≥80% for dry areas and ≥95% for wet areas and exteriors with all tile edges properly supported with mortar and in a minimum of 3/32” (2.38 mm) and a maximum of ¼” (6mm) for mortars without an ANSI “H” rating. Note: Larger tiles, tiles with deep underside patterns and ungauged natural stone tiles may require larger notch sizes and may need to be flat back-troweled (formerly back buttered) or notched-back troweled to achieve proper coverage and mortar support. CUSTOM recommends testing to confirm adequate bonding mortar coverage. When back troweling, consider the tile’s underside pattern and depth to estimate thickness and usage to add to your estimate. For achieving proper mortar coverage see the following video: Trowel & Error. (Also available in Spanish and Russian.) For information For achieving proper mortar coverage see the following video: Trowel & Error. (Also available in Spanish and Russian.) For information regarding back troweling, refer to The National Tile Contractors Association / Reference Manual & Flat Back & Notched Back - Troweling (TileTVS3 22 08).