

Pro-Line Medium Bed Modified

Polymer-Modified Medium Bed Mortar

Packaging: Available in 50 lb. bags. Gray/White

- * **Polymer Modified-Build up to 3/4"**
- * **Reduces Lippage**
- * **No V.O.C.**
- * **Contributes to LEED®**

◆**Usage:** Medium Bed Modified fully supports heavy tiles and stone, reducing lippage problems and the need for leveling or pre-floating rough surfaces. Medium Bed Modified can be built up to 3/4" (19mm) without shrinkage or extended set times. It may be used for either walls or floors and is perfect for both interior and exterior applications. Medium Bed Modified is a blend of Portland cement, sand and special dry latex additives that significantly improve bond strength and freeze-thaw stability performance characteristics. **ANSI A118.1, A118.4, A108.5**

◆**Suitable Substrates:** Properly prepared plumb and true masonry, concrete, cementitious backer units, cured Portland cement mortar beds, brick, ceramic tile, and stone. Used for both interior and exterior applications. For interior, dry applications Medium Bed Modified can be used over drywall (vertical only). With the addition of Pro-Line Pro Latex liquid additive Medium Bed Modified will also bond to EGP (interior only) and meet **ANSI A118.11**.

◆**Preparatory Work:** All substrates must be clean, dry, and structurally sound and not subject to extreme temperatures (below 40°F or above 100°F) during installation. Detailed instructions may be found in the T.C.N.A. Handbook and ANSI A108.5. Surface must be free of all grease, oil, dirt, dust, curing compounds, sealers, coatings, efflorescence, old adhesive residues, gypsum based underlayments and any other foreign matter. Painted or glossy surfaces must be sanded, stripped, and free of all contaminants.

◆**Tile:** Remove any tile release agent (usually a whitish powder), dust, or other contaminants found on the tile or stone back. This may be done by scrubbing with a nylon brush and water.

◆**Expansion Joints:** Expansion joints shall be installed in accordance with local building codes. See EJ171 in T.C.N.A. handbook for details. Expansion joints, control joints and cold joints should never be bridged with setting material.

◆**Cementitious Substrates:** Clean via mechanical sanding, scraping, or chipping. Surface may also be cleaned with muriatic acid if thoroughly flushed and neutralized. Smooth, steel troweled concrete surfaces must be mechanically scarified to ensure a good bond. Concrete should be able to absorb water. Dry porous concrete should be dampened prior to tile installation- do not leave puddles or standing water on surfaces.

◆**Non-Cementitious Substrates:** Surfaces such as stripwood, old plaster or painted surfaces that provide bonding problems should be covered with a cleavage membrane topped with a 3/8" to 3/4" reinforced mortar bed for walls and a 1 1/4" reinforced mortar bed for floors.

◆**Plywood Substrates:** With the addition of Pro-Line Pro Latex liquid additive Medium Bed Modified will also bond to EGP wood flooring (interior only) when placed on top of conventional floor joist or other system, should maintain a substrate deflection not to exceed L/360th of span and L/720th of span for natural stone and that includes both live and dead loads. A gap of 3/16" must be left between sheets of EGP and all materials they abut to allow for expansion. Do not fill expansion joints with setting material. EGP substrate is acceptable for dry, interior applications only. Floors must comply with TCNA instructions for Floors, Interior: Wood Subfloor.

◆**Ceramic Tile Substrate:** Existing tile substrate must be properly bonded. Surface must be prepared in accordance with cementitious substrates; surface is required to be mechanically scarified prior to installation to ensure a proper bond.

◆**Mix:** Medium Bed Modified dry powder should be added to clean, cool, potable water only at the rate of approximately 6 quarts per 50 lb. bag. Mix thoroughly until smooth and paste-like consistency is achieved and let mortar slake for 10 minutes, then remix. If a mechanical mixer is used, it must be mixed at a low RPM (300 or less) so as not to entrap air in the mortar. Do not add water or additional powder after slaking period. The proper mortar consistency is such that when applied with a notched trowel to the substrate, the ridges formed in the mortar will not flow or slump. Do not use mortar after initial set in bucket. During use, remix mortar occasionally.

◆**Application:** Spread mortar with flat side of trowel to key into substrate; then, apply additional mortar to a depth sufficient to be notched with a suitable trowel that will leave only enough mortar to give 100% contact with back of tile and a subsequent mortar bed of 3/32" to 3/4". With high lug tiles, "back buttering" may be required to ensure 100% coverage to back of tiles. During the setting of tile, it is advisable to occasionally remove a tile to be sure mortar has not skinned over and sufficient transfer is being made. It is also required that tiles be embedded to obtain good transfer of mortar to tile and for proper alignment. Do not adjust tiles in mortar after they have been set past 20 minutes.



Data Sheets are subject to change without notice. For latest revision, check our website at www.bondedmaterials.com. If an installation or materials should be changed outside the detailed instructions, please contact our technical support dept. for assistance.

◆ Bonded Materials Company ◆

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rev. Apr-09

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◆**Curing:** Minimum cure is obtained in approximately 24 hours depending on ambient temperatures. Allow minimum of 24-48 hours before grouting or light traffic. When used to install tile in an area that will be continually wet, it is recommended the installation be allowed to cure a minimum of 14 days and be thoroughly dry prior to water exposure.

◆**Cleaning:** Clean off any uncured mortar with clean water only.

◆**Limitations:** Medium Bed Modified must not be applied directly over hardwood, asphalt sheeting, vinyl covered wall board, Masonite®, cement asbestos board, metal, glass, fiberglass, plastic, luan plywood or gypsum mortar beds. Improperly cured or wet plywood, particle board or stripwood surfaces are not considered suitable substrates. Some red, black, as well as all green marbles may warp when installed with setting materials containing water, these marbles along with all resin-backed marbles must be set with Pro-Line Poxy™.

◆**Protection:** Protect from freezing for 5-7 days

◆**Coverage:** Square feet per 50 lb. bag
 25 - 30 sq. feet using a 3/4" x 3/4" U- notched trowel
 40 - 50 sq. feet using a 1/2" x 1/2" square notched trowel
 65 - 70 sq. feet using a 1/4" x 3/8" square notched trowel

◆**Storage:** One year if kept dry in sealed bags.

◆**Safety:** May cause eye, skin, or lung injury. Contains free silica. Prolonged exposure to dust may cause delayed lung disease (silicosis). Eliminate exposure to dust. Use NIOSH approved mask for silica dust. Contains Portland cement. If any cement or cement mixtures get into the eye, flush immediately and repeatedly with water and consult a physician promptly. Freshly mixed cement, mortar, concrete, or grout may cause skin injury. Avoid contact with skin where possible and wash exposed areas promptly with water. KEEP OUT OF REACH OF CHILDREN.

◆**Warranty:** Bonded Materials Company ("Bonded Materials") warrants to the original consumer purchaser that its product shall be free from defects in material and workmanship under normal and proper use for a period of one year following the date of original purchase. Bonded Materials sole liability under this warranty shall be limited to the replacement of the product. The statements, recommendations, and technical information provided are furnished without warranty, representation, inducement or license of any kind; except that it is accurate to the best of our knowledge, or obtained from sources believed by us to be accurate. Bonded Materials makes no warranty for a particular purpose with respect to product sold herein, except quality of components shall be in accordance with Bonded Materials standards. It is expressly understood and agreed that the buyer's sole and exclusive remedy shall be replacement of defective products. Handling and actual use of product are beyond the control of Bonded Materials, therefore, no warranty is made, expressed or implied, as to the results obtained from use of the product or against any claims for infringement of patents resulting from the use of the product. Some states 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 Bonded Materials printed instructions. Bonded Materials 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.

Bonded Materials Company is a member in good standing with the following organizations: National Tile Contractors Association (NTCA), Marble Institute of America (MIA), Ceramic Tile and Stone Association of Arizona (CTSA), Materials and Methods Standards Association (MMSA), Construction Specifications Institute (CSI) and American Institute of Architects (AIA) Accredited for Continuing Education.

Medium Bed Modified Technical Data (based on 70°F [21°C] and 50% relative humidity)

Test	Medium Bed Modified Values
*Open time @ 70°F -	12-15 Minutes
Adjustability @ 70°F -	12-15 Minutes
Bucket life @ 70°F -	8 Hours
Shear Bond ANSI A118.4	
Non-Vitreous Tile 28 Days	>500 psi (35 kg/cm ²)
Vitreous Tile 28 Days	>300 psi (21 kg/cm ²)
Non-Vitreous Tile (over plywood) as tested by the ANSI A118.11 standards 28 Days <small>*With the addition of Pro Latex additive</small>	>250 psi (18 kg/cm ²)

*Open times vary based on temperature, humidity, substrate, trowel size, and job-site conditions.



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