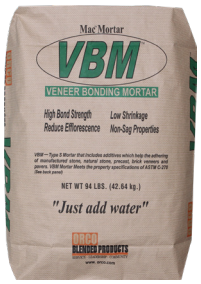
VBM™ - Standard - Poly LFT - Poly 300 - Poly 500 Medium Bed

Medium Bed Bonding Mortars for Adhering Masonry Veneer & Pavers

DS.VBM. 061620

PRODUCTS

VBM - Standard ☐
VBM - Poly LFT ☐
VBM - Poly 300 ☐
VBM - Poly 500 ☐



MANUFACTURER

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VBM Poly & Mac Mortar

DESCRIPTION

VBM, VBM Poly-LFT, 300 & 500 are pre-blended, polymer modified mortars designed specifically for adhering manufactured stone, natural stone, thin brick, precast concrete, certain tiles or similar masonry veneers and pavers requiring a medium bed (1/4"-1 1/2") bonding mortar. VBM mortars produce exceptional bond strength and non-sag properties that improve production. VBM Poly provides excellent water repellency and efflorescence reducing properties. Available in natural gray and special order colors. All VBM products are suitable for interior or exterior commercial and residential projects. Includes antimicrobial additives.

VBM: VBM combines high performance with economy.
VBM-Poly LFT: Includes additional tack and water retention. Designed specifically for large format tiles and stone. A bridge between a thin set and medium bed bonding mortar.
VBM-Poly 300: Contains higher levels of water repellent and bonding polymers. VBM Poly-300 has high bond strengths and water repellent properties.
VBM-Poly 500: Has the highest level of water repellent and bonding polymers. It is the mortar recommended for the most difficult bonding conditions.

R-FlexAd - Replacing all or part of the mix water increase flexural bond and impact resistance**.** Recommended for areas subject to vehicle traffic.

Efflorescence: All VBM mortars reduce the potential for efflorescence. Poly blends offer the greatest water repellency, however due to variables beyond our control, we cannot guarantee efflorescence will not occur.

USES

High strength, medium bed, bonding mortars for installing masonry veneers and pavers. Masonry products are manufactured stone, natural stone, thin brick, precast concrete, concrete pavers, terra cotta, certain tile and similar masonry units. Interior-Exterior. Residential-Commercial. Pavers with vehicle traffic use Poly. Residential-Commercial. See VBM-MAC Installation Guide.

ADVANTAGES

- High shear bond strength
- Extra tack and non-sag properties
- Water repellent(VBM Poly)
- Freeze thaw durability-(VBM Poly)
- Low shrinkage

PACKAGING

VBM Mortars are available in 50lb moisture resistant bags. **SHELF LIFE:** When stored in a cool dry area, with low humidity, shelf life is approx. six months to one year.

COVERAGE: Coverage can vary based on job conditions and application thickness. Yield is approximately .4 Cu. Ft. per 50 lb bag. At 1/2" thickness, coverage is approx. 10 SqFt.

LIMITATIONS

- Do not apply when temperatures are below or expected to fall below 40^{0}F prior to cure.
- Applicable building codes must be followed.
- Substrate must be sound- cracks or excessive movement may telegraph through mortar or cause bond failure.
- Avoid applications in high heat, wind or cold. (follow ANSI, TCA, or ASTM)
- Masonry products and substrate conditions can vary dramatically.
- Follow proper design and application procedures.
- Always perform quality control testing before and during application. - Not recommend over particle board, plywood, Luan, or hard wood floors.
- Not recommended for green marble or water sensitive stone.

TECHNICAL DATA

VBM Mortars contain Portland Cement (ASTM C-150), washed masonry sand (ASTM C-144), Type S Lime (ASTM C-207), R-Mortar Aid and proprietary polymer additives. Manufactured in accordance with ASTM C-1714.

All VBM medium bed mortars meet the property specifications of ASTM C270 Type S. Compressive strength specimens must be air cured for 7 days prior to testing due to their high water retention and water repellency (per ANSI 118.1). All VBM mortars exceed IBC, CBC, and TMS-402/602 requirements of a minimum of 50psi shear bond strength requirements (ASTM C482 modified). All VBM mortars exceed the shear bond strength requirements of ANSI 118.4 - Latex Modified Mortars (tile 1/4" thick)(>300psi).

For added flexural properties, replace part or all of the mixing water with R-FlexAd or R-AcrylicAd. ie- extra heavy vehicle traffic and extra difficult substrates.

INSTALLATION (Also See VBM-MAC Installation Guide)

Substrates: The substrate must be structurally sound and conform to good engineering practices. Substrate deflection under all live, dead and impact loads, including concentrated loads must not exceed L/360 for thin bed installation or L/480 for thick bed stone installations, where L= span length. Installations shall be in accordance with applicable building codes. Movement joints shall be brought through mortar and veneer to the surface. **All surfaces must be sound, clean, and free from any dirt, oil, paint, bond breakers, efflorescence or any contaminants which may hinder bond.**

SUITABLE SUBSTRATES (properly prepared and sound.)

- Lath and Portland cement plaster
- Concrete block (Untreated)
- Masonry brick (Untreated)
- Concrete (Prepared)
- Cement mortar beds

Note: It is the responsibility of the user to ensure the mortar is suitable for the intended application, the substrate is properly prepared and application is performed correctly.

Concrete block (Untreated) – May be directly adhered to or lath and plaster may be attached.

Wood or steel studs – Shall receive an approved sheathing, lath and plaster.

Lath and Cement Plaster – Lath and cement plaster shall conform to IBC, CBC, ASTM guidelines, and veneer manufactures requirements. Allow to cure 72 hours prior to application. We recommend **Mac Scratch and Brown** or Premium to provide a high strength, water resistant plaster substrate.

Poured in place concrete (Prepared) and tilt up concrete (Prepared) — Ensure all release agents and bond breakers are completely removed, mortar will not bond to surfaces with any bond breakers still on the substrate. This is best achieved by removal of the surface layer by bead blasting, grinding or equivalent. The substrate must still be checked to assure complete removal of any bond inhibiting substances. Smooth concrete must be roughened. High pressure washing is typically **not adequate** for complete removal of bond breakers or release agents. Concrete should be well cured. 28 days recommended.

Cement backer board (Prepared) – A VBM thin bed mortar (ie **VBM-Thinset**, **VBM-Poly ThinBrick**, **VBM-Bonder**) must be used as the bonding mortar on cement backer board. Additional damp proofing/waterproofing may be required in some applications- see VBM-MAC Installation Guide. Application shall be approved by the stone or brick manufacturer. All joints must be taped with fiberglass tape and joints filled with VBM Bonder, R-Lastic or equal. Consult cement backer board manufacturer for specific installation recommendations and limitations. A suitable substrate for bonding does not mean it is recommended for all veneer or job conditions.

Mixing: Add mortar to clean, potable water and mix approximately 3 to 5 minutes per ASTM C-270. (Approx. 4-5 qts./50 lbs. or 18 to 20% by weight). Mortars may be mixed in a mechanical paddle mixer or mixed in smaller batches with a drill and mixing blade. **Do not over mix.** Mixing should be done carefully with a proper blade and at low speed to minimize air entrainment. High air content will reduce performance. Best non-sag is achieved at a drier consistency.

Application: Important: Mortar must be firmly pressed into the surface of the veneer and substrate to assure good contact and bond. Do not simply slide mortar onto the surface. Veneer must have 100% coverage with mortar squeezing out on all sides. Mortar shall be a minimum of 3/8" thick. Always perform quality control testing before and during application. Periodically remove masonry unit shortly after installation to assure an equal amount of mortar is bonding to the veneer and the substrate. Two methods of application may be used depending on the veneer and substrate. **Method A**: Back buttering the veneer and press onto the substrate with enough pressure to force mortar out around the entire perimeter. **Method B:** Shall be application of a leveling coat to the substrate - back buttering the veneer/paver and pressing with enough pressure to force mortar out around the entire perimeter. Do not allow leveling bed to skin over prior to installation. See VBM-MAC Installation System.

Joint Grout/Pointing Mortars – MAC Mortars (course sand) or **VP Joint Grout** (fine aggregate) is recommended. Allow bonding mortars to fully set (minimum 24 hrs) prior to grouting to assure bond is not disturbed. These mortars also contain efflorescence reducing additives.

AVAILABILITY \ TECHNICAL SERVICES

Contact ORCO Blended Products for dealers in your area and technical services at 877-838-6726.

CAUTION

Prolonged exposure to dust may cause delayed ling disease. Eliminate exposure to dust. Use NIOSH approved mask for silica dust. Freshly mixed materials may cause skin irritation. Avoid direct contact where possible and wash exposed skin areas promptly. If any cementitious materials get into the eyes, rinse immediately and repeatedly with water and get prompt medical attention. See SDS sheet. **Warning:** This product can expose you to Silica, crystalline (airborne particles or respirable size) which is known to the State of California to cause cancer. For more information go to www.p65Warnings.ca.gov.

WARRANTY

The technical information and usage statements are based on our best knowledge. The contents of the specification sheet are presented for informational purposes only and do not constitute responsibility for their use. The manufacturer will replace only that material which is proven defective due to quality of the components or the manufacturing process.

RELATED PRODUCTS

MAC Scratch & Brown - A high strength cement plaster.
VBM Thin Bed Mortars- Polymer modified, water repellent thin set.
MAC Mortars - Type S mortars for grouting. (Course sand)
MAC VP Joint Grout- Polymer modified joint grout. (Fine aggregate)
R-Lastic- Elastomeric waterproof and Anti-Fracture Coating.
R-FlexAd- Latex bonding mortar additive.
R-AcrylicAd- Acrylic mortar and grout additive

Pelican Hill, Newport Beach, CA VBM-Poly 300