

MULTI-PURPOSE THIN SET

Dry Set Mortar For Plywood

MANUFACTURER:

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PRODUCT DESCRIPTION:

MULTI-PURPOSE THIN SET is a single component, polymer modified, Portland Cement based formulation with graded aggregates and modifiers, designed to be a high performance setting mortar for use over plywood. It is ideal for all ceramic quarry, marble, pavers, and natural stone tiles on floors and walls. It will exceed ANSI A 118.11 and ANSI A 118.15 when mixed with water.

USES:

- ▶ Walls, floors and ceilings
- ▶ Interior or exterior
- ▶ Above or below grade
- ▶ Residential and heavy commercial applications
- ▶ Use over concrete, concrete block, masonry, gypsum board, Portland Cement beds, cement backer board, brick, ceramic tile, marble, and terrazzo, plus exterior grade plywood (interior floors only)

ADVANTAGES:

- ▶ Exceeds ANSI A 118.11 and ANSI A 118.15
- ▶ Polymer modified, eliminating the need for costly additives
- ▶ Accepts absorbent and non-absorbent tiles
- ▶ Requires no presoaking of tiles
- ▶ Non-staining, water washable
- ▶ Highly water resistant
- ▶ Impact and vibration resistant
- ▶ Non-flammable

TILE SETTING OVER PLYWOOD



- ▶ High bond and flexural strength
- ▶ Use over any structurally sound exterior grade plywood

INSTALLATION:

Surface Preparation:

All surfaces must be structurally sound, dry, and free of grease, oil, dirt, dust, curing compounds, sealers, coatings or any other foreign matter. Roughen all smooth, steel troweled concrete floors to ensure good bonding. Ceramic tile substrates should be abraded to ensure proper bonding. When application is over plywood, installation requires two layers of APA exterior plywood, underlayment grade or better, with a minimum total thickness of 1 1/4". Fasten layers with screw nails located 6" centers along plywood edges and 8" centers each way throughout the sheet. The subfloor must consist of a minimum of 5/8" exterior plywood or 1" nominal boards over bridged floor joists 16" on center with a maximum deflection of 1/360 of the span. The top layer must consist of a minimum of 5/8" exterior plywood with offset end and edge joints at least two inches from the subfloor joints. Leave a 1/8" to 1/4" space between top layer sheets edges and all materials they abut such as walls, drains, posts, etc. These joints should be filled with the setting mortar when tiles are being installed. Adjacent edges of plywood must not be more than 1/32" above or below each other. Install plywood with rough or knotty side exposed to enhance mechanical adhesion of thin-set mortar to plywood. Enhanced adhesion may be attained by priming the plywood with Embond C.

Mixing:

We recommend using 5 quarts of water per 50 lb. bag of *MULTI-PURPOSE THIN SET*. Add *MULTI-PURPOSE THIN SET* to clean water and mix to a thick, lump-free mortar consistency. The proper consistency is such that when applied with a notched trowel, the ridges formed will not flow or slump. If using a drill mixer, use a low speed, high torque drill not to exceed 600 RPM, fitted with a suitable mixing blade so as not to entrap air in the mix. Allow the mix to stand for 10-15 minutes, then remix before use. Mix occasionally during use.

Placement:

Using pressure, apply a thin skim coat with flat edge of trowel. Then using the proper sized notched trowel apply a second coat to form ridges. Leave only enough *MULTI-PURPOSE THIN SET* to give 100% contact with the back of the tile and a mortar bed of 3/16" to 1/8". Trowel only in an area that can be tiled before the mortar skins over (15-20 minutes). If mortar skins over, remove and apply fresh mortar. Apply dry tiles with pressure and a slight twisting motion. Immediately beat tiles in to ensure maximum contact and bond. After setting several tiles, remove one or two and inspect, making sure tile backs are 100% covered with mortar. Back buttering of tiles may be necessary to ensure 100% coverage.

Curing:

MULTI-PURPOSE THIN SET is self-curing. All traffic should be kept off of floor for a minimum of 48 hours. Jobsite temperature must remain between 45°F and 95°F for a minimum of 72 hours after installation. Grouting may be done after 24 hours if tiles are firmly set and kneeling boards are used.

Coverage:

When applied with a 1/4" x 3/8" x 1/4" square notched trowel, one 50 pound bag of *MULTI-PURPOSE THIN SET* will cover approximately 50 square feet of surface. When applied with a 1/4" x 1/4" x 1/4" square notched trowel, one 50 pound bag will cover approximately 75 square feet of surface. When applied with a 3/16" x 3/16" V notched trowel, one 50 pound bag will cover approximately 100 square feet of surface.

Packaging:

Available in 50 pound multiwall paper bags with moisture barrier.

Colors:

Available in white and gray.

TECHNICAL DATA:

ShearBond Strength (ANSI A118.15)	
Glazed Wall Tile (Vitreous Tile)	
28 days	850 psi
Impervious Ceramic Mortar Tile (Non-Vitreous Tile)	
28 days	450 psi
Quarry Tile	
28 days	600 psi
ShearBond Strength to Plywood (ASTM C-882)	
28 days	240 psi
Compressive Strength (ASTM C-109)	
28 days	4,000 psi
TCA Service Rating (ASTM C-627) Extra Heavy	
Set Time (ASTM C-266)	
Initial	
Final	
Open Time at 72°F	
Pot Life at 72°F	

MULTI-PURPOSE THIN SET exceeds ANSI A 118.11 and ANSI A 118.15 when mixed with water.

LIMITATIONS:

Do not apply over frozen or frost laden substrates. Temperature must remain above 45°F for a minimum of 72 hours after application.

CAUTION:

Contains Portland Cement CAS #65997-15-1. Freshly mixed cement products may cause skin injury. Avoid contact with skin where possible and wash exposed areas promptly with water. If any product gets into the eye, rinse immediately and repeatedly with water. If ingested, **do not** induce vomiting and get prompt medical attention. Also contains Sand CAS #14808-60-7. Avoid breathing dust. Prolonged exposure to dust may cause delayed lung injury (silicosis) or cancer IARC Class 2A. Wear NIOSH approved mask for silica dust. **Keep Out Of Reach Of Children.**

WARRANTY:

Due to the use of this product beyond our control, we assume no liability for damages of any kind, and the user accepts the product "as is" and without warranties, expressed or implied, from either Empire Blended Products or its agents. The suitability of the product for an intended use shall be solely up to the user. Our only obligation shall be to replace or pay for any material proved defective, with our liability limited to the purchase price of materials supplied by us.