



PRODUCT INFORMATION

ceramabond[®] plus
Latex-portland cement bond mortar

CERAMABOND PLUS is a professional grade, enhanced polymer modified dry-set mortar composed of Portland cement, sand and special polymer additives. **CERAMABOND PLUS** has an excellent bond to porcelain tile, ceramic tile, marble and stone over a variety of substrates.

TEXTURE:

Powder, consisting of portland cement, polymer additives and graded silica sand.

COLORS:

Gray or white.

PACKAGING:

50 lb (22.7 kg) bag.

BASIC USE:

> **CERAMABOND PLUS** can be used over minor surface cracks up to 1/16" (1 mm) and will reduce tile cracking when used on residential substrates subjected to limited in plane movement.

> It is used in a mortar bed as thin as 3/32" - 3/16" (3-5 mm) after the tiles have been properly embedded.

> **CERAMABOND PLUS** offers the economy and ease of application of dry-set mortars while significantly improving bond strength, freeze-thaw stability, flexibility and other qualities formerly only available through the use of liquid latex additives or epoxy emulsion systems.

> Used as a bond coat for setting absorptive, semi-vitreous, vitreous and impervious ceramic or porcelain tiles in residential or commercial service areas.

AREA OF USE:

Suitable backings, when properly prepared, include plumb and true masonry, concrete (broom finished), cementitious backer units, cured portland cement mortar beds, brick, ceramic tile, marble and cement based terrazzo. In interior dry areas only, it can be used over gypsum board (walls only) and exterior glue plywood. **CERAMABOND PLUS** may also be used over properly prepared VCT, sheet vinyl flooring (excluding cushion backed) and cutback adhesive residue when prepared in accordance with the Resilient Floor Coverings Institute's Recommended Work Practices for Removal of Resilient Floor Coverings. **CERAMABOND PLUS** may be used over waterproofing or crack isolation membranes meeting ANSI A118.10 and A118.12. Any other substrate must be approved in writing by an officer of the manufacturer.

BENEFITS:

> **CERAMABOND PLUS** may be used over waterproofing or crack isolation membranes meeting ANSI A118.10 and A118.12. Any other substrate must be approved in writing by an officer of the manufacturer.

> It has excellent water and impact resistance, is water cleanable, non-flammable, good for exterior and interior work. Contains zero VOC's and requires no soaking of tiles.

LIMITATIONS:

> **CERAMABOND PLUS** must not be applied directly to asphalt sheeting, vinyl covered wall board, masonite, lauan plywood, cement asbestos board, metal, glass or plastic, curing compounds and chemically treated surfaces.

> Improperly cured or wet plywood, tongue and groove plywood, particle-board, OSB or strip wood surfaces are not considered suitable substrates.

> Some green or red marbles may warp when installed with setting materials containing water, causing loss of bond and/or damage to the finish. These marbles must be set with EPOXYPLUS[®] TS.

> Use in temperature range above 40 °F (Do not allow mortar to freeze for the first 72 hours).

> The product does not form a water-proof barrier. It's not affected by prolonged water contact yet water and moisture will pass through it.

APPLICABLE STANDARDS:

Meets and exceeds requirements for dry-set mortars found in ANSI A118.1, A118.4, A118.11, ANSI A108.5, A108.11 and A108.12.



OVER
TILE



OVER
CONCRETE



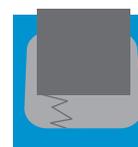
WEATHER
RESISTANT



OVER
PLYWOOD



INTERIOR/EXTERIOR
FLOORS/WALLS



OVER CRACKS
<1/16"

Technical Data: CERAMABOND® PLUS



TEST	REQUIREMENT	TYPICAL VALUES
*Open time @ 70 °F (21 °C)		12 minutes
*Adjustability @ 70 °F (21 °C)		15 minutes
*Pot life @ 70° F (21 °C)		6 hours
Compressive Strength (PSI)		
ASTM C-109		>3300
Shear Bond (PSI) ANSI A118.4		
Non-vitreous tile	7 Days: 300 minimum	>475
	28 Days: 300 minimum	>560
Porcelain tile	7 Days: N/S	>260
	28 Days: N/S	>325
Non-vitreous tile	7 Days: 100 minimum	>185
(over plywood) ANSI A118.11		
	28 Days: 150 minimum	>275

*These values reflect the results of practical testing methods closely associated with applications in the field.

INSTALLATION: PREPARATORY WORK

All surfaces must be dry, structurally sound and solid and be above 40 °F (4 °C) and below 90 °F (32 °C) during application and initial cure (72 hours).

CEMENTITIOUS SUBSTRATES

Area must be clean and dry. Remove all efflorescence, grease, oil, dirt, dust, paint, sealers, curing compounds, asphalt, cut back residue, old adhesives and other foreign matter. Failure to remove these items causes bond loss and void product warranty. Roughen smooth steel troweled concrete. Remove foreign matter and/or roughen surface by mechanical scarified or shot-blasting to prepare surface. Dampen porous surfaces with clean water before installing the mortar and leave no puddles or remaining water on surface for best conditions. Substrate deflection shall not exceed 1/360 that of the span.

PLYWOOD SUBSTRATES

Floor must be strictly built to resist flex and rigid to prevent bending with ceramic tile and stone. The surface shall comply with IRC and IBC building codes. Bond surface is exterior glue plywood only, secured with screw-type nails and glued where possible. An open gap of 1/8" - 3/16" (5 mm) must be left empty around sheets of plywood to allow for expansion. Plywood surfaces must be for interior areas only and water/moisture protected near wet areas.

NON-CEMENTITIOUS SUBSTRATES

All non conforming surfaces such as strip wood, old plaster or painted surfaces can be covered with a cleavage membrane topped with a 3/8" to 3/4" (10-20 mm) reinforced mortar bed for walls and a 1 1/4" (32 mm) reinforced mortar bed for floors. After a minimum of 20 hours, the dry-set mortar may be applied to the mortar bed. Plastic laminate shall be sanded and well bonded to its substrate.

TILE OVER TILE AND OTHER SURFACES

Surface must be Portland cement bond compatible, the old surface must be well bonded and without waxes, sealer, or coatings. Smooth or slick surfaces will be heavily scratched, scarred, course sanded or abraded to provide mechanical bond.

EXPANSION JOINTS

Install expansion joints around all perimeters or restraining surfaces where possible to allow for expansion movement. Never bridge an expansion, contraction or construction joint. Add additional joints for large areas and areas subject to the sunlight, heat/cold temperatures in accordance with local building codes. See EJ171 in TCNA Handbook for detailed specifications. Remove all thinsert mortar, grout and debris from joints before backer rod and sealant are placed.

MIXING

Add cool, drinkable water and dry powder **CERAMABOND MB FS** in a clean container. Stir by hand tool or low RPM (less than 300) drill mixer into a lump-free, mortar paste consistency. Drill mixer paddle or wand should be

"open-loop" design to not add air or weaken the mortar. Mortar should be very soft paste mixture that does not slump, slide or flow from container, tool or trowel. Allow freshly mixed mortar to slake, wait for 15 minutes, then re-stir into a paste to get maximum working and spreading time. Do not add any additional water after this point. Mix only enough mortar than can be used within 30 minutes. Stir mortar occasionally to prevent firm set of mortar. If a mortar sets firm in container discard it and re-mix a new batch. Mix approximately 6 quarts (5.6 liters) per 50 lb (22.7 kg) bag. There's no need to add another latex liquid to this product.

APPLICATION

Apply the wet mortar to the bond surface with flat-side of trowel in a scraping or scratching motion to drive the wet mortar into the surface. Then take additional mortar with the notched-side of trowel to form and comb the ridges. Trowel the mortar ridges in one straight direction to help prevent hollow tiles and maximized bond contact. Tiles with deep patterns, high lugs or those with irregular texture on the back surface may require "back buttering" to ensure 100% coverage of back of tiles. Proper method of bonding of tiles requires embedding, pressing and sliding tiles perpendicular to wet mortar ridges to have a nominal mortar thickness of 3/32" - 3/16" (3 - 5 mm) and 100% coverage. 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. Do not adjust tiles in mortar after they have been set past 10-15 min. NOTE: As a practical test, it is recommended that three or more separate 12 sq. in. areas of tile be bonded to the properly prepared surface with the actual tile and bonding materials that will be used on the finished installation. These should be allowed to cure for 3 - 7 days and then removed with a hammer and chisel. At this point, one can determine if adequate bond has been obtained or if a problem exists.

TROWEL RECOMMENDATION:

Smaller tiles will use smaller notched trowels and larger tiles will require larger notched trowel suitable for providing a minimum 3/32" - 3/16" (3 - 5 mm) bed thickness after embedding the tile.

CLEANING:

Water is all that is needed to remove uncured product.

COVERAGE:

A 50 lb (22.7 kg) bag using a square-notched trowel covers:
 1/4" X 1/4" = 77 sq ft
 1/4" X 3/8" = 66 sq ft
 1/2" X 1/2" = 41 sq ft

CURING AND GROUTING:

A minimum cure is obtained in 12 - 24 hr, depending on ambient temperatures. Normal grouting should be done 48 hr later (ANSI A108.5).

STORAGE LIFE:

One year if kept dry in sealed bag.

SAFETY - CAUTION: 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 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 skin areas promptly with water.

KEEP OUT OF REACH OF CHILDREN

GUARANTEE: The recommendations, suggestions, statements and technical data in this bulletin are based on our best knowledge. They are given for informational purposes only and without any responsibility for their use. The responsibility for the seller and manufacturer is only to replace that portion of the product of this manufacturer, which proves to be defective due to the quality of the ingredients or the manufacturing process itself. However, since handling and use is beyond our control, we do not guarantee the results to be obtained. Only written statements signed by an officer of the manufacturer are binding on the manufacturer or seller. Nothing in this bulletin should be interpreted as a recommendation for a use, which violates any patent right.

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