



**PRODUCT INFORMATION**

**ceramabond® fs**

Polymer modified, fast setting mortar

**CERAMABOND FS** is a professional grade, specially developed fast setting dry-set mortar composed of portland cement, sand and special polymer additives. It has an excellent bond to porcelain tile, ceramic tile, marble and stone over a variety of substrates. **CERAMABOND FS** effects the ease of application of dry-set mortars with fast, same day bonding. It's rapid setting properties allow for grouting and open to light traffic in 3 hours.

**TEXTURE:**

Powder, consisting of portland cement, polymer additives in powder form and graded sand.

**COLORS:**

Gray only.

**PACKAGING:**

50 lb (22.7 kg) bag.

**BASIC USE:**

> **CERAMABOND FS** is used as a bond coat for setting absorptive, semi-vitreous, vitreous and impervious ceramic and porcelain tiles for both residential and commercial use.

> **CERAMABOND's FS** rapid setting properties allow for grouting and open to light traffic in 3 hours.

> Apply mortar from 3/32" - 3/16" (3-5mm) thickness measured tiles are properly embedded.

> It is recommended for both interior and exterior floor and installations and those subjected to high traffic, freeze-thaw conditions.

**AREA OF USE:**

Suitable backings include properly prepared plumb and true masonry, concrete, cementitious backer units, cured portland cement mortar beds, brick, ceramic tiles, marble and cement based terrazzo. In interior dry area only, use **CERAMABOND FS** over gypsum board, exterior glue plywood and high pressure laminate.

**BENEFITS:**

> It has excellent water and impact resistance, is water clean, non-flammable, contains zero VOC's and requires no soaking of tiles.

> **CERAMABOND FS** can bond over properly prepared VCT, sheet vinyl flooring (excluding cushion backed) and cutback adhesive residue when prepared in accordance with the resilient Floor Covering Institute's recommended work practices for removal of resilient floor coverings.

> **CERAMABOND FS** 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.

**LIMITATIONS:**

> **CERAMABOND FS** 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 particleboard, strip wood surfaces or gypsum mortar beds are not considered suitable substrates.

> Some green or red marbles may warp when installed with 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 (4 °C). Do not allow mortar to freeze for the first 72 hours.

> This product is not affected by prolonged water contact but it does not form a waterproof barrier.

**APPLICABLE STANDARDS:**

Meets and exceeds requirements for dry-set mortars found in ANSI A118.1, ANSI A118.4, sect. F-2.1.1 (fast setting dry-set mortar), A118.11, A108.5, A108.11, A108.12, CT1-64-1.



OVER TILE



OVER CONCRETE



WEATHER RESISTANT



OVER PLYWOOD



INTERIOR/EXTERIOR FLOORS/WALLS



OPEN TO LIGHT TRAFFIC IN 3 HOURS

## Technical Data: CERAMABOND® FS

TEST	REQUIREMENT	TYPICAL VALUES
*Open time @ 70 °F (21 °C)		20 minutes
*Adjustability @ 70 °F (21 °C)		15 minutes
*Pot life @ 70° F (21 °C)		45 minutes
Shear bond ANSI A118.4		
Non-vitreous tile	4 hours	250 psi (17.6 kg/cm <sup>2</sup> )
	7 days	425 psi (29.9 kg/cm <sup>2</sup> )
	28 days	550 psi (38.7 kg/cm <sup>2</sup> )
Porcelain tile	4 hours	150 psi (10.5 kg/cm <sup>2</sup> )
	7 days	250 psi (17.6 kg/cm <sup>2</sup> )
	28 days	400 psi (28.1 kg/cm <sup>2</sup> )
Quarry tile (over wood)	2 hours	150 psi (10.5 kg/cm <sup>2</sup> )
ANSI A118.11	7 days	250 psi (17.6 kg/cm <sup>2</sup> )
	28 days	300 psi (21.1 kg/cm <sup>2</sup> )

\*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 95 °F (35 °C) during application and initial cure (72 hours). Detailed installation procedures may be found in TCNA Handbook and ANSI A108.5.

### 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.

### CUTBACK ADHESIVE

Remove thick, powdery residue, brittle and weak layers. Do not sand or grind residue as it may contain asbestos. Use wet scraping method as described in the "work practices for removal of resilient floor coverings", published by the resilient Floor Covering Institute. The remaining residue should be thin and almost transparent.

### 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.

### PLYWOOD SUBSTRATES

All plywood flooring, when placed over conventional floor joist or other systems should be of a design and thickness so as to maintain a substrate of deflection not to exceed 1/360 of span, including live and dead load. Further, the flooring to receive CERAMABOND FS mortar should be exterior grade plywood only, secured with screw type nails and glued where possible. A gap of 1/8" - 3/16" shall be left between sheets of plywood to allow for expansion. In addition, all plywood surfaces must be for interior use only and protected from exposure to water. For heavier service use TCNA Handbook details F141-F143 or F144.

### TILE OVER TILE AND OTHER SURFACES

It is absolutely essential that the existing tile and other surfaces be well bonded. The surfaces must be prepared in accordance with the requirements for cementitious surfaces. It is also necessary to abrade the surface to assure proper bonding. Other surfaces include terrazzo and marble and vinyl composition tile. Remove all waxes, sealers and coatings that would interfere with the 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 thinset mortar, grout and debris from joints before backer rod and sealant are placed.

### MIXING

Add cool, drinkable water and dry powder CERAMABOND 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. 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 helps to prevent hollow tiles and maximized bond contact. Tiles with deep patterns, high lugs or on 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 minutes. NOTE: As a practical test, it is recommended that three or more separate twelve inch square 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 remove 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 notches trowels and larger tiles will require larger notched trowel suitable for providing a minimum 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" = 40 sq ft

### CURING AND GROUTING:

Grouting can begin as soon as the tiles are firmly set (about two hours after setting). If an accelerated grout is necessary, use CHROMA Grout or AC-CENT Grout mixed with ACRYLIC ADMIX 150 FS liquid additive instead of water.

### 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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