

TexRite®

EpoxyPlus 2002 Non-Staining Epoxy Tile Setting Mortar and Grout

EPOXYPLUS 2002 TS Chemical Resistant, High Bond Epoxy Tile Setting Mortar

Product Information

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EPOXYPLUS 2002 is a 100% solids blend of epoxies and special integrally colored silica fillers that can be used as a setting material or a grout. **EPOXYPLUS 2002TS** is a 100% solids epoxy used as a setting material that contains a select silica filler instead of integrally colored silica that reduces the cost and provides easier spreading. Both products can be used for setting ceramic tile, glass tile, pavers, marble and stone over a variety of substrates. **EPOXYPLUS 2002TS** is especially suited for bonding green and red marbles that are subject to warping and discoloration if traditional mortars containing water are used. Both products produce a high strength mortar that is stain resistant, impermeable and shock resistant. They have exceptionally high chemical resistance to many acids, alkalis, solvents and household stains.



HydroRite if a waterproof membrane is required.

As a grouting material, **EPOXYPLUS 2002** is much easier to clean than pigmented epoxies that allow pigments to get into the pores of tiles (especially unglazed tiles) making clean-up difficult and often staining the tile. The special integrally colored silica will not get into the pores of tiles making clean-up much easier.

Areas of particular use are where the use of acids, alkalis, solvents, strong detergents and other chemicals cause erosion and damage to the setting beds and grout joints. **EPOXYPLUS 2002** is impermeable making it ideal for usage in areas susceptible to staining such as kitchen countertops and floors.

BASIC USE

EPOXYPLUS 2002 and **EPOXYPLUS 2002TS** may be used for both floor and wall installations. As setting materials, they are used as a mortar as thin as 1/16" to 1/8" after tiles have been properly embedded. They are water cleanable before curing, nonflammable and easy to work. Both products are not affected by prolonged contact with water, but they do not form a waterproof membrane. Use

LIMITATIONS

EPOXYPLUS 2002 and **EPOXYPLUS 2002TS** should not be subjected to an environment above 250°F for any extended period of time. Although suitable for exterior applications, lighter colors will darken from UV exposure. Appropriate maintenance is based on the site environment. Assure compatibility of cleaning products and methods with tile, grout and setting material manufacturers. Remove cleaning residue and other contaminants to avoid damage from prolonged exposure to food, biological

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EpoxyPlus 2002

EpoxyPlus 2002TS

waste, industrial chemicals and aggressive cleaning solutions. Usage of “no rinse” cleaning solutions is not recommended.

APPLICABLE STANDARDS

EPOXYPLUS 2002 and **EPOXYPLUS 2002TS** conform to the requirements for chemical-resistant, water cleanable tile setting and grouting epoxy found in ANSI A118.3 and ANSI A108.6.

PACKAGING

EPOXYPLUS 2002

Colors - 23 available (see grout color guide)

2 Gallon Unit Consists of:

- Part A - Two Quarts of Epoxy Resin (2 lbs. ea.)
- Part B - Two Pints of Hardener (1 lb. ea.)
- Part C - Two Bags of Colored Silica (10 lbs. ea.)

1 Gallon Unit Consists of:

- Part A - One Quart of Epoxy Resin (2 lbs.)
- Part B - One Pint of Hardener (1 lb.)
- Part C - 10 lbs. Colored Silica

1/2 Gallon Unit Consists of:

- Part A - One Pint of Epoxy Resin (1 lb.)
- Part B - 1/2 Pint of Hardener (1/2 lb.)
- Part C - 5 lbs. Colored Silica

EPOXYPLUS 2002TS

Color - Off White

2 Gallon Unit Consists of:

- Part A - Two Quarts of Epoxy Resin (2 lbs. ea.)
- Part B - Two Pints of Hardener (1 lb. ea.)
- Part C - Two Containers of Sand (10 lbs. ea.)

1 Gallon Unit Consists of:

- Part A - One Quart of Epoxy Resin (2 lbs.)
- Part B - One Pint of Hardener (1 lb.)
- Part C - 10 lbs. Sand

TILE INSTALLATION

Preparatory Work

Suitable substrates, when properly prepared, include plumb and true masonry, concrete, cured Portland cement mortar beds, brick, ceramic tile, cementitious backer units, steel, glass and fiberglass. All surfaces on which tiles are to be set must be structurally sound and not subject to temperatures below 65°F or above 95°F.

Substrates must be dry and free of efflorescence, grease, oil, dirt, dust, paint, sealers, curing compounds, asphalt, cutback residue, old adhesives and other foreign matter. Protect painted surfaces from exposure to epoxy. It is

recommended to store units of epoxy in an atmosphere between 65°F and 75°F for 24 hours prior to usage to obtain the maximum working time of the material. During tile installation, always use the proper notch sized trowel to fully embed the tiles. This helps to reduce voids beneath the tile that can cause settling and high or low epoxy grout joints. Detailed installation procedures and use of epoxy mortars may be found in the T.C.N.A. Handbook under F-143, F-131, TR-711 and TR-912 in addition in ANSI A108.6.

Cementitious Substrates

Concrete substrates must be a minimum of 14 days old and free of excess moisture. Cleaning may be accomplished via mechanical sanding, scraping, chipping or shot-blasting. Smooth steel troweled concrete must be scarified or shot-blasted to provide a roughened surface. Cementitious backer units must have seams taped and floated when required by manufacturer.

Plywood Substrates (Interior Only)

Floor systems, including the framing system and subfloor panels over which tile will be installed, shall be in conformance with the IRC for residential applications, the IBC for commercial applications or applicable building codes. The flooring to receive the **EPOXYPLUS 2002** or **EPOXYPLUS 2002TS** should be exterior grade plywood only, secured with screw type nails at 6 inch centers along the edges and 8 inch centers within the field and glued where possible. Leave a gap of 3/16" between sheets of plywood and all materials which they abut. The gaps shall remain empty when the installation is complete. All wooden surfaces must be protected from exposure to water.

Miscellaneous Substrates

Bonding to membranes that do not meet ANSI A118.10 or ANSI A118.12 must be approved in writing by an officer of the manufacturer. Other substrates like steel, glass, and fiberglass must be free of all oils, coatings, release agents, rust, dust and moisture. In addition, these surfaces should be roughened to insure a good bond. It is also essential that the existing surface be structurally sound and firmly attached to the supporting structure.

Expansion Joints

Install in accordance with local building codes. See EJ171 in the T.C.N.A. Handbook for detailed specifications. Never bridge expansion, contraction or construction joints. Remove all thin-set, mortar, grout and debris from joints before application of sealant.

Mixing

For all units, pour Part A and B into a clean mixing pail and mix thoroughly. Then, while mixing, slowly add the

entire content of Part C and mix until uniform. If a power mixer is used, it must be 300 RPM or less to avoid entrapping air bubbles that cause pinholes in the grout. Do not overmix as this will cause the epoxy to flash set.

Application for Setting

Spread mortar with the flat side of the trowel to key-in the substrate. Then, reapply additional mortar to a depth sufficient to be notched with a suitable trowel that will leave only enough mortar to give 100% contact with the back of tile and a subsequent mortar bed of 1/16" for ceramic mosaic tile to 3/32" for quarry tile. Comb mortar with notched side of trowel in one direction only. Set the tile in the mortar and move the tile back and forth perpendicular to the trowel ridges to collapse the ridges and "embed" the tile in the mortar establishing complete coverage. With high lug tiles, "back-buttering" may be required to ensure 100% coverage of back of tiles. Temperature affects tack time. Therefore, it is advisable to occasionally remove a tile to be sure mortar has not skinned over and sufficient transfer is being made. Approximate tack time is 30 minutes at 70°F. Should epoxy mortar get on surface of tile, remove it with a damp sponge before it cures.

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 three to seven 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.

| SETTING COVERAGES Square Feet Per 1 Gallon | | |
|---|-------------------------|-----------------------------|
| Product | 3/16" x 1/4" V-Notch | 1/4" x 1/4" Square Notch |
| Epoxy Plus 2002 | 36 | 22 |

GROUT INSTALLATION

Preparatory Work

Before grouting with **EpoxyPlus 2002**, test grout the tile or stone or check with the manufacturer to determine compatibility. The use of grout releases may be helpful or required to prevent grout film residue on some unglazed tile or stone. Before grouting, clean all grout joints of loose debris and excess mortar to leave a minimum grout joint depth of 2/3 the thickness of the tile. Clean all tile or stone surfaces to remove contaminants that may cause grout discoloration. Allow tiles to set firmly and adhesive/mortar must be completely dry before grouting (large format tile may require extended curing time). Joint width must be a minimum of 1/16" to a maximum of 3/8". Be

prepared for application and clean-up by staging the correct tools and clean buckets filled with clean, cool water before beginning to apply **EpoxyPlus 2002**.

Application for Grouting

Apply grout using a hard rubber float with sharp edges, filling all joints full and evenly with surface of tile. As work progresses, remove all excess epoxy from surface of tile by holding the rubber float perpendicular (90°) to the tile surface and pulling it diagonally across the joints. Cleaning the remaining grout off the surface of the tile should begin immediately after application of the unit. Do not wait for the grout to firm up in the joint before cleaning. Cleaning must be accomplished before the grout begins to set. Special care should be exercised to avoid removing excessive material from the grout joint during cleaning as **EpoxyPlus 2002** will be very soft. Clean the remaining grout off the tile using plenty of clean water and a Scotch-Brite® pad to break up the epoxy film followed by more clean water with a stiff sponge with rounded edges to remove the residue. Unlike cement based grouts, plenty of water and a wet sponge should be used for cleaning. Change water and sponges often to prevent putting epoxy residue back on the surface of the tile. During clean-up, protect all un-grouted joints from water and epoxy residue. Usage of a wet-vac can be useful for removal of water from adjacent grouting areas. Final removal of epoxy residue should be accomplished by dragging with a wet, short napped towel rinsed in clean water. During grout application, protect all areas from airborne dust and debris that may discolor or become imbedded in the uncured **EpoxyPlus 2002** grout joints. Best Practice: Allow the tile surface to dry for 2-4 hours. Then check to make sure all epoxy residue or film has been removed. At this time, repeat the cleaning steps if any residue is found.

Curing

After applications, protect setting and grouting material for 1 day (24 hours) against foot traffic and on site construction work. It is advisable to cover epoxy grout after its initial 8 hour cure. Do not allow epoxy grout to be subjected to airborne particles such as sawdust or gypsum board dust. If grout haze is present the day following grouting, it must be removed with clean water only.

Note: Do not use acid type cleaners (including vinegar) to clean epoxy grout haze. Initial maintenance for the first 7 days shall be done with clean water only. Protect the grout from chemical (industrial cleaner) attack for the first 14 days.



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Product Information

Page 4

| GROUT COVERAGE REQUIREMENTS | | | | | |
|-----------------------------|-------------------------|-------------|--|-------|-------|
| Tile Type | Tile Size | Joint Width | Number of (units) of EpoxyPlus 2002 required per 100 sq. ft. | | |
| | | | 1/2 Gal | 1 Gal | 2 Gal |
| Wall Tile | 4 1/4" x 4 1/4" x 5/16" | 1/16" | 1.1 | 0.6 | 0.3 |
| Mosaics | 1" x 1" x 3/16" | 1/8" | 4.9 | 2.5 | 1.3 |
| | 2" x 2" x 3/16" | 1/8" | 2.7 | 1.4 | 0.7 |
| | 2" x 2" x 5/16" | 3/16" | 6.4 | 3.2 | 1.6 |
| Floor Tile | 2" x 4" x 5/16" | 1/8" | 3.4 | 1.7 | 0.9 |
| | 4" x 4" x 5/16" | 1/8" | 2.3 | 1.2 | 0.6 |
| | 4" x 8" x 1/2" | 1/4" | 5.4 | 2.7 | 1.4 |
| | | 3/8" | 7.8 | 3.9 | 2.0 |
| | 6" x 6" x 1/2" | 1/4" | 4.8 | 2.4 | 1.2 |
| | | 3/8" | 7.1 | 3.6 | 1.8 |
| | 12" x 12" x 5/16" | 3/16" | 1.2 | 0.6 | 0.3 |
| | | 1/4" | 1.6 | 0.8 | 0.4 |
| | 12" x 24" x 3/8" | 1/8" | 0.7 | 0.4 | 0.2 |
| | | 3/16" | 1.1 | 0.6 | 0.3 |
| | 18" x 18" x 3/8" | 1/8" | 0.7 | 0.4 | 0.2 |
| | | 3/16" | 1.0 | 0.5 | 0.3 |
| Floor Brick | 3 7/8" x 8" x 3/4" | 1/4" | 8.0 | 4.0 | 2.0 |
| | 3 7/8" x 8" x 1 3/8" | 1/4" | 15.0 | 7.5 | 3.8 |

This chart is for estimating how much product is needed for a given tile installation. These figures are based on filling joints to their full depth with no waste. For additional tile sizes see calculator on website at www.texrite.com.

SPECIFICATIONS

Technical Data: EpoxyPlus 2002 & EpoxyPlus 2002TS

| Test | Requirement | Typical Values |
|---|-------------|----------------|
| Water Cleanability | 80 minutes | 90 minutes |
| Initial Set at 75°F | > 2 hours | > 5 hours |
| Shrinkage - 7 days | < 0.25% | < 0.25% |
| Sag (Vertical joint) | NONE | NONE |
| Bond Strength (psi) Vitreous Tile - 14 days | >1000 | >1200 |
| Compressive Strength (psi) - 7 days | >3500 | >7000 |
| Tensile Strength (psi) - 7 days | >1000 | >2000 |

Chemical Resistance - Excellent for most solvents, acids, and alkalis.
Texas Cement products can provide specific chemical resistance on request.

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. Recommend use of a NIOSH approved mask for silica dust. If epoxy mixture gets into the eye, flush immediately and repeatedly with water, and consult a physician promptly. Avoid contact with skin where possible and wash exposed skin areas promptly with water.

KEEP OUT OF REACH OF CHILDREN.

| Features | Benefits |
|------------------------------|--|
| Exceeds ANSI A118.3 | Increased durability and strength with chemical resistance to most acids and alkaline cleaners. |
| Water Cleanable | No special chemicals required for cleaning uncured EpoxyPlus 2002 during installation. |
| Integrally colored aggregate | No staining of tile or stone during application and clean-up. |
| No sealers required | Grout does not stain from normal household products. |
| Cement grout look | Available in 23 colors, same color wet or dry. No efflorescence guaranteed. |
| Easy Installation | Everything in one package, including the mixing bucket. |
| Residential or commercial | Floors, walls and countertops, interior or exterior, non-sagging for wall joints from 1/16" - 3/8" without modification. |

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 rights.

DSEPPLUS/TS050509