PORCELAIN TS is an economical standard grade, polymer modified dry-set mortar used as a bond coat for setting porcelain tile, ceramic tile, natural marble and stone used for service in residential and commercial use. It is used as thin as 3/32” - 3/16” after the tiles have been properly beat in.

COLORS:
Gray or white.

PACKAGING:
50 lb (22.7 kg) multi-wall bags

BASIC USE:
PORCELAIN TS may be used for setting absorptive, semi-vitreous and vitreous and impervious tiles in residential or commercial service areas.

It may be used for interior or exterior applications. It has excellent water and impact resistance.

AREA OF USE:
Suitable backings include properly prepared plumb and true masonry, concrete (broom finished), cementsitious backer units, cured portland cement mortar beds, brick, ceramic tile and marble. In interior dry areas only, it can be used over gypsum board (walls only). When mixed with Texrite’s Acrylic Admix 150 fs liquid, PORCELAIN TS can be used over exterior grade plywood following instructions on Acrylic Admix 150 fs liquid label or data sheet.

BENEFITS:
PORCELAIN TS is water cleanable, non-flammable, and requires no soaking of tiles.

LIMITATIONS:
PORCELAIN TS must not be applied directly to asphalt sheeting, vinyl covered wall board, masonite, lauan plywood, cement asbestos board, metal, glass or plastic, cut back adhesives, 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 the finish. These marbles must be set with EPOXYPLUS®.

USE IN TEMPERATURE RANGE ABOVE 40 ºF. DO NOT ALLOW MORTAR TO FREEZE FOR THE FIRST 72 HOURS.

This product is not affected by prolonged water contact but does not form a water-proof barrier.

APPLICABLE STANDARDS:
Meets and exceeds requirements for dry-set mortars found in ANSI A118.1, A118.4 and ANSI A108.5, A108.11, CTI-64-1.

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

**COLORS:** Gray or white.

**PACKAGING:** 50 lb (22.7 kg) multi-wall bags

**BASIC USE:**
PORCELAIN TS may be used for setting absorptive, semi-vitreous and vitreous and impervious tiles in residential or commercial service areas.

It may be used for interior or exterior applications. It has excellent water and impact resistance.

**AREA OF USE:** Suitable backings include properly prepared plumb and true masonry, concrete (broom finished), cementitious backer units, cured portland cement mortar beds, brick, ceramic tile and marble. In interior dry areas only, it can be used over gypsum board (walls only). When mixed with Texrite’s Acrylic Admix 150 fs liquid, PORCELAIN TS can be used over exterior grade plywood following instructions on Acrylic Admix 150 fs liquid label or data sheet.

**BENEFITS:** PORCELAIN TS is water cleanable, non-flammable, and requires no soaking of tiles.

**LIMITATIONS:** PORCELAIN TS must not be applied directly to asphalt sheeting, vinyl covered wall board, masonite, lauan plywood, cement asbestos board, metal, glass or plastic, cut back adhesives, 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 the finish. These marbles must be set with EPOXYPLUS®.
INSTALLATION:
PREPARATORY WORK
All surfaces on which tiles are to be set must be structurally sound, cured a minimum of 28 days, completely clean and free of frost and in an atmosphere above 40 °F (4 °C) and below 90 °F (32 °C) during its 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 scarifying 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 systems, including the framing system and subfloor panels over which underlayment and tile will be installed shall be in conformance with the IRC for residential applications, the IBC for commercial applications or other applicable building codes. Further, the underlayment to receive the PORCELAIN TS mortar should be exterior glue plywood (interior only), secured with screw-type nails and glued where possible. A gap of 1/8” - 3/16” (3-5 mm) shall be left between sheets of plywood and remain empty after the installation to allow for expansion. In addition, all plywood surfaces must be for interior use only and protected from exposure to water.

NON-CEMENTITIOUS SUBSTRATES
All no conforming surfaces such as strip wood, old plaster or painted surfaces should 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, PORCELAIN TS may be applied to the mortar bed.

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 existing ceramic tile, terrazzo, brick, marble and stone.

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 EJ741 in TCNA Handbook for detailed specifications. Remove all thinset mortar, grout and debris from joints before backer rod and sealant are placed.

MIXING
PORCELAIN TS should be only added to clean potable water (60 - 80 °F). Mix PORCELAIN TS with 1/2 gallons of clean water only to obtain a smooth paste consistency mortar. Allow mix to settle for 10 to 15 minutes, then re-mix before using. If mechanical mixer is used, it must be a low RPM (150 or less) to avoid entrapping air into the mortar. Do not use mortar after initial set in bucket. During use, remix mortar occasionally.

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 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
Suitable for providing a minimum 3/32” - 3/16” (3-5 mm) bed thickness after beat in. Refer to coverage chart for proper trowel size.

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:
A minimum cure is obtained in 12-24 hours depending on ambient temperatures. Normal grouting should be done 48 hours after tiles have been set (ANSI A108.5) except for setting beds in excess of 3/8” which requires 72 hours before grouting.

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 information 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.