

PERMALASTIC SYSTEM

Description

ProSpec® Permalastic is a two component, highly engineered thin set mortar with superior flexibility and bond strength, flexural strength, workability and elongation.

System Components

Permalastic Additive
(2 gal.)



Permalastic Powder
(50 lb. bag)



NOTE: Two-part system requires Permalastic Powder to be mixed only with Permalastic Additive.

Features

- C2-E-S2-P2 performance per ISO 13007
- Ideal for use in heavy traffic areas
- Extra Heavy Duty Rating per ASTM C627
- Bridges 3/16" cracks
- Walls, floors or ceilings
- Interior or exterior
- Sets most types of ceramic tile or stone
- Superior bond strength
- Exceeds ANSI A118.4 for Latex Portland Cement Mortar and ANSI A118.11 for EGP Latex Portland Cement Mortar

Uses

For commercial installations of:

- Porcelain tile
- Ceramic tile
- Glass tile*
- Quarry tile
- Cement tile
- High bottom lugged tile
- Other natural stone
- Slate
- Pavers
- Marble (except warpable marble)*

* All marble should be tested to be sure discoloration does not occur.

For installation over:*

- Difficult to bond substrates
- Suspended slabs
- VCT flooring
- Countertops
- Cork underlayment
- Exterior grade plywood (interior floors only)
- Concrete
- Terrazzo
- Concrete and masonry block
- B-6000 Waterproof Membrane
- Tile backerboard
- Tile over tile
- Cut back adhesive

* All substrates must be properly prepared per the TCA Handbook. For more information or for information on other substrates, contact ProSpec Technical Services.

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Technical Data		
	Typical Values	ANSI A118.11
Shear Strength to Porcelain Tile		
28 days dry	460 psi (3.2 MPa)	>200 psi (1.4 MPa)
Shear Strength Quarry Tile to EGP Plywood		
28 days	270 psi (1.9 MPa)	>150 psi (1.0 MPa)

Preparation

Apply only to surfaces that are frost-free and between 40° F (4° C) and 100° C (38° C) for 24 hours. Surface must be clean, hard, and free from dirt, loose particles, waxes, plastics, curing compounds, grease, paint, and efflorescence. Walls and floors must be structurally sound, free of movement and dimensionally stable. These surfaces must also be within tolerances for trueness and plumbness.

New concrete must be cured and have a broom finish. Smooth troweled surfaces should be etched or scarified to assure bond. Inspect surfaces tile will be applied to and accessories to be used.

Notify the architect or other designated authority in writing of any defects or conditions that prevent a satisfactory tile installation. (See ANSI A108.5) In case of truing or leveling the work of others, ProSpec Permalastic can be applied to a maximum thickness of 1/2" (13 mm).

Surfaces to receive tile shall be plumb and true with square corners. Maximum variation from the required plane shall be: Sub Floor Surfaces – 1/4" (6 mm) in 10' (3 m).

Expansion joints are necessary for all installations. All installations must conform to the current specifications ANSI A108.5 and the TCA Handbook for ceramic tile installations.

Expansion joints shall be located (refer to the TCA Handbook for Ceramic Tile Installation):

- Where tile work abuts restraining surfaces, such as perimeter walls, curbs, columns, pipes and the like.
- Directly over joint in structural floor and over construction or cold joints.
- Directly over expansion or control joints
- Where specified in the architectural drawing

NOTE: It is the responsibility of the installer/applicator to ensure the suitability of the product for its intended use.

Mixing

1. Use clean tools and clean containers.
2. Add dry powder to the Permalastic Additive to produce a thick but trowelable consistency (2 gal. (7.6 L) per 50 lbs. (22.7 kg)). Troweled ridges should not flow or slump.
3. Mix thoroughly.

4. Do not mix with a high-speed power mixer. High speed mixing tends to beat in air, reducing the strength of the mortar.
5. Slake for 5 minutes then remix for 30 seconds.
6. Working life in the bucket is approximately 1-2 hours.

NOTE: Warmer temperatures will reduce the working life in the bucket.

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Application

All installations must conform to the current specification in ANSI A108.5 and the TCA Handbook for Ceramic Tile Installations.

1. Select the proper trowel size. The proper trowel is one that will insure a minimum of $\frac{3}{32}$ " (2 mm) layer of mortar between the tile and substrate after the tile has been set. The proper trowel should also result in a minimum of 80% coverage interior or dry areas and 100% for exterior, wet areas or with marble.
2. With pressure, apply a skim coat to the substrate with the flat edge of the trowel.
3. Comb the mortar in one direction, with the recommended notched trowel, only that part of the bed that can have tile put on it before skinning occurs. If skinning occurs, scrape and discard skinned mortar.
4. Press tile into place and slide perpendicular to the ridges to insure proper coverage.
5. Tile may be adjusted up to 15 minutes after placing.
6. Tile floor must be firmly set before grouting. This requires approximately 16-24 hours.
7. Grout with ProSpec® Unsanded Tile Grout, ProSpec Sanded Tile Grout or ProSpec B-7000 Epoxy Grout.
8. Clean tools with soapy water before mortar dries.

Best Performance

- Mix only with Permalastic Additive
- Mortars should not be applied to substrates that are below 50° F (10° C), nor should the mortar be exposed to freezing conditions during the first 72 hours of curing.
- All materials should be stored at 40° F (4° C) to 80° F (27° C) 24 hours prior to installation.
- Do not expose the completed tile installation to freezing temperatures or immersion in water for 21 days.
- Do not adjust tile after mortar takes its initial set or the bond will be permanently broken.
- Do not retemper with water or additive to extend pot life
- Never add water or dry material after the thin set mortar has slaked. This causes shrinkage and results in poor bond.
- Do not soak tile.
- Do not use worn trowels. After tile is set, a minimum of 80% coverage is required for interior applications and 100% for exterior applications.
- Do not allow foot traffic on freshly installed tile for 24 hours.
- Do not allow heavy traffic until 72 hours after installation
- At cooler temperatures set time will be extended
- For best results when installing translucent or light colored marble, Permalastic white is recommended; 100% coverage is required
- For installation of green marble or warpable marble, use ProSpec B-7000 Epoxy.

Colors

Gray or white

Coverage

Coverage per 50 lb. (22.7 kg) bag:

$\frac{1}{4}$ " x $\frac{1}{4}$ " x $\frac{1}{4}$ " square notch trowel - 100-110 ft² (9.3-10.2 m²)

$\frac{1}{4}$ " x $\frac{1}{4}$ " x $\frac{3}{8}$ " square notch trowel - 80-84 ft² (7.4-7.8 m²)

$\frac{1}{2}$ " x $\frac{1}{2}$ " x $\frac{1}{2}$ " square notch trowel - 25-27.5 ft² (2.3-2.6 m²)

Packaging

Powder: 50 lb. (22.7 kg) bag

Additive: 2 gal. (7.6 L) jug

Note: Powder and Additive sold separately

Shelf Life

Powder and additive have a shelf life of one year from the date of manufacture when stored in the original closed container away from moisture.

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VOC Content

System: 0.9 grams/liter

Powder: 0 grams/liter

Additive: 2.8 grams/liter

Caution

Permalastic Additive:

KEEP OUT OF REACH OF CHILDREN AND ANIMALS. Contains acrylic copolymer emulsion. May be harmful if swallowed. If swallowed, call a physician immediately. If splashed in eyes, irrigate with large amounts of water and contact a physician.

Permalastic Powder:

KEEP OUT OF REACH OF CHILDREN AND ANIMALS. WARNING! MAY CAUSE SKIN AND EYE BURNS OR IRRITATION. INHALATION IS

KNOWN TO CAUSE CANCER OR DELAYED LUNG INJURY.

Avoid contact with eyes and skin. This product contains hydraulic cement and lime. When mixed with water and/or latex, it results in a solution that is highly alkaline and may burn or irritate the eyes or skin. Wear safety glasses or goggles, protective clothing, shoes and gloves to prevent eye and skin contact. Do not take internally. Avoid breathing dust. This product contains crystalline silica. Prolonged exposure to

crystalline silica dust is known to cause lung cancer or delayed lung injury, including silicosis. Take measures to eliminate or control dust while handling or placing this product. Wear a respirator approved for protection against crystalline silica dust.

Warning! This product contains chemicals known to the State of California to cause cancer, birth defects or other reproductive harm. Crystalline silica has been classified by IARC and NTP as a carcinogen.

First Aid

Permalastic Additive:

When Permalastic Additive is mixed with a cementitious product it results in a mixture that is highly alkaline. Inhalation may cause irritation to the moist mucous membranes of the nose, throat and upper respiratory system or may cause or may aggravate certain lung diseases or conditions.

For eye contact: Immediately flush eye thoroughly with water. Continue flushing eye for at least 15 minutes, including under lids, to remove all particles. Get medical attention if irritation occurs.

For skin contact: Wash skin with water and soap or a mild detergent. Seek medical treatment if irritation or inflammation develops.

For inhalation: Remove person to fresh air. If breathing is difficult, administer oxygen. If not breathing, give artificial respiration. Seek medical help if coughing and other symptoms do not subside.

For ingestion: Do not induce vomiting. If conscious, have the victim drink plenty of water and call a physician immediately.

Permalastic Powder:

If swallowed, drink one or two glasses of water to dilute. Do not induce vomiting unless directed to do so by medical personnel. SEEK IMMEDIATE MEDICAL ATTENTION. In case of contact, flush eyes or skin thoroughly for a minimum of 15 minutes with clean water and get prompt medical attention. Wash clothing and thoroughly clean shoes before reuse.

For additional information, call Bonsal American at 704-525-1621 or CHEMTREC at 800-424-9300 or 703-527-3887 outside of the USA. Refer to Material Safety Data Sheet (MSDS) for further information.

LIMITED 1 YEAR WARRANTY FROM DATE OF MANUFACTURE: Bonsal American warrants that this product and the materials used therein meet or exceed the applicable standards listed and enforced at the time of manufacture. Bonsal American will replace any product or part which proves defective due to quality of ingredients used or due to the manufacturing process itself. This Warranty shall apply only if the product is used in strict accordance with applicable specifications and instructions provided by Bonsal American for its use, and Bonsal American shall not be liable otherwise. Replacement of any defective product, or, at Bonsal American's option, refund of the purchase of any defective product shall be the buyer's sole remedy under this Warranty, and Bonsal American shall in no event be liable for any damages in excess of the purchase price of the defective product. BONSAL AMERICAN SHALL IN NO EVENT BE LIABLE FOR ANY CONSEQUENTIAL, INCIDENTAL OR SPECIAL DAMAGES INCLUDING LOSS OF PROFITS OF ANY KIND. Product demonstrations are done for illustrative purposes only and do not constitute a warranty or warranty alteration of any kind. This Warranty constitutes the sole warranty given by Bonsal American in connection with this product. No modification of this Warranty in favor of any buyer shall be valid unless given in writing and signed by an officer of Bonsal American. Bonsal American has authorized no person to make or give any other warranties or representation, oral or written on its behalf. IN PARTICULAR, THERE ARE NO IMPLIED WARRANTIES, INCLUDING WITHOUT EXCEPTION WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.