

1. PRODUCT NAME

ProSpec® B-7000 Epoxy Mortar & Grout

2. MANUFACTURER

Bonsal American
8201 Arrowridge Blvd.
Charlotte, NC 28273-5678 USA

Tech Services: 1.800.334.0784
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3. PRODUCT DESCRIPTION

ProSpec B-7000 Epoxy Mortar & Grout is a 100% solid, chemical resistant and water cleanable tile setting and grouting epoxy. B-7000 Epoxy Mortar & Grout is a 3-part epoxy that cures by chemical reaction. Part A is the resin, Part B is the hardener, Part C is ProSpec ProColor Sanded Grout (sold separately) and Part D is a thickener to use for vertical applications.

Features and Benefits

- 100% solids
- Easy to clean
- Stain, acid, and alkali resistant
- Water cleanable
- Heat resistant up to 350°F (177°C)
- Non-absorptive grout
- Ideal for installing green marble and moisture sensitive natural stone
- Ideal for use as a mortar and/or grout (interior only)
- Sets most types of ceramic tile or stone
- Exceeds ANSI A118.3

Uses

Grout:

- Used to grout virtually any ceramic tile or stone*
- Ideal for use in sanitary areas: kitchens, bathrooms, restaurants, hospitals, etc.
- Suitable for use where the grout is exposed to acids or alkalis
- Suitable for use where steam cleaning will take place

* Not recommended for grouting absorptive tile or stone; staining may occur. It is the users responsibility to determine the suitability.

Mortar:

- Used to set ceramic tile, porcelain tile, quarry tile, pavers, mosaic tile and natural stone.
- As a setting material, can be used for interior or exterior applications.
- Recommended for use where chemical resistance is needed e.g., breweries, dairies, food preparation areas, etc.

Note: B-7000 Epoxy Mortar & Grout may stain some light colored stone.

Uses (cont.)

For installation over:

- Fully cured dry concrete slabs (minimum 28 days)
- Tile backer board
- Gypsum plaster, gypsum block or gypsum board (dry areas - walls only)
- Properly prepared vinyl or vinyl asbestos flooring
- Properly prepared tile
- Cured portland cement mortar (cured conventional setting beds)
- Plumb and true masonry
- Exterior grade plywood (interior floors and for residential and light commercial areas only)

Safety

READ THE SAFETY DATA SHEET (SDS) BEFORE USING THIS PRODUCT. SDS information is available on our website www.prospec.com or contact CHEMTREC (24 hours availability) 800-424-9300 for International inquiries +011-703-527-3887, or contact Bonsal American Technical Services at 800-334-0784 (8:00 AM to 5:00 PM Eastern US Time).

4. TECHNICAL DATA

Exceeds ANSI A118.3 for Chemical Resistant Water Cleanable Tile Setting and Grouting Epoxy

	Time	Typical Value
Compressive Strength	7 days	8,000 psi (55.2 MPa)
Initial Setting Time	n/a	> 9 hours
Shrinkage	7 days	0.12%
Thermal Shock	n/a	1027 psi (7.1 MPa)
Shear Strength	n/a	> 1,500 psi (10.3 MPa)

Test results obtained under controlled laboratory conditions. Reasonable variations can occur due to atmospheric and job site conditions.

Chemical Resistance

B-7000 Epoxy Mortar & Grout is recommended where exposure to the following room temperature chemicals will be encountered:

Acetic Acid (3%)	Aluminum Fluoride
Ammonium Bromide	Amyl Alcohol
Barium Hydroxide	Beer
Benzyl Acetate	Bromine Water
Butanol	Calcium Chloride
Calcium Hydroxide	Carbon Disulfide
Carbon Tetrachloride	Citric Acid (20%)
Chlorine Water (Bleach)	Chromic (10%)
Cooking Grease	Ethyl Alcohol
Ferric Chloride	Household Ammonia
Hydrobromic Acid (10%)	Hydrochloric Acid (37%)
Hydrofluoric Acid (48%)	Hydroiodic Acid (20%)
Nitric Acid (10%)	Phosphoric Acid (10%)
Potassium Hydroxide (5%)	Potassium Hypochlorite
Pyridine (20%)	Sat. Sugar Solution
Sodium Carbonate	Sodium Hypochlorite
Sodium Hydroxide	Soy Sauce
Sulfuric Acid (45%)	Disodium Phosphate (5%)
Vegetable Oil	Wine

Note: For other chemicals, please contact ProSpec Technical Services.

VOC Content

< 10 g/l

LEED Eligibility¹

- Regional Materials (MR-c5)
- Low-Emitting Materials (IEQ-c4.1, IEQ-c4.3)

Packaging

3.8 lb (1.7 kg) pail - Product #65464541

9.6 lb (4.4 kg) pail - Product #65464542

Shelf Life

12 months from the date of manufacture when stored in the original, unopened container, away from moisture, under cool, dry conditions and out of direct sunlight.

Colors

B-7000 Epoxy Mortar & Grout can be mixed with any color of ProSpec ProColor Sanded Grouts.

5. INSTALLATION

Preparation for Grouting

B-7000 Epoxy Mortar & Grout will not bond to surfaces below 60°F (16°C). The ideal surface temperature is 60°F (16°C) to 75°F (24°C). The colder B-7000 Epoxy Mortar & Grout is, the thicker it gets and the longer it takes to cure.

Mixing

- B-7000 Epoxy Mortar & Grout is packaged in accurately weighed proportions that allow for proper performance. Mix only full, complete units.
- For 3.8 lb (1.7 kg) units of B-7000 Epoxy Mortar & Grout, use 10 lbs (4.5 kg) of ProColor Sanded Grout (Part C). For 9.6 lb (4.4 kg) units, use 25 - 30 lbs (11.3 - 13.6 kg) of ProColor Sanded Grout.

Mixing (cont.)

- If grouting vertical applications or using as a setting mortar, add the contents of thickener (Part D). Stir units well before mixing.
 - Always add the liquid to the mixing container first, and then add the filler portion (ProColor Sanded Grout and thickener) to the liquid.
1. Mix thoroughly until uniform. This should only take 1 - 2 minutes. B-7000 Epoxy Mortar & Grout cures by a chemical reaction between Part A and Part B. Mix either by hand or with a slow speed mechanical mixer.
 2. Do not over mix as this will create air bubbles and generate heat which will cause premature setting.
 3. Once mixed, it is best to get the epoxy out of the container as soon as possible. This will reduce the heat being generated.
 4. The recommended working temperature for B-7000 Epoxy Mortar & Grout is between 70°F (21°C) and 85°F (29°C). At higher temperatures the bucket life, working times and cleanup times are reduced. At lower temperatures the times are extended.
 5. A surface temperature of 60°F (16°C) must be maintained before, during and 24 hours after the application. (Surface temperature should be determined using a surface thermometer.) B-7000 Epoxy Mortar & Grout will not bond to a surface colder than 60°F (16°C). When epoxies are applied to cold surfaces they become very thick.
 6. In winter, store B-7000 Epoxy Mortar & Grout in a heated area several days prior to use. Both portions can be heated by immersing sealed unit in heated water just prior to mixing. Do not allow resin temperature to exceed 100°F (38°C).

Application for Grouting

All installations must conform to the current specifications in ANSI A108.6 and the current TCNA Handbook for Ceramic Tile Installations.

1. Before applying the epoxy to the face of the tile, dampen the surface of tile lightly with water. DO NOT get water into empty grout joints. For high absorptive tile a grout release may be needed followed by dampening the surface of tile lightly with water as grouting progresses.
2. Using a hard rubber float, force the grout into the joints. Be sure all joints are well compacted and free of voids.
3. Remove the excess grout from the tile surface by holding the float at a 90° angle and screed diagonally (from corner to corner) across the tile.
4. The tile may be cleaned immediately after grouting. Do not let epoxy cure on the face of the tile.
5. To clean the tile use a white nylon pad with a liberal amount of water. Warm water or cold water can be used. Some liquid dish soap in the cleanup water will greatly aid in the cleanup.
6. When scrubbing with the white nylon pad, a white lather will be created. This lather is now water cleanable and only needs to be removed from the tile. Be sure to change the cleanup water and white nylon pad often. Do Not get cleanup water in the ungrouted joints. This will cause discoloration of the grout. To keep from getting water into the ungrouted joints, stop cleaning approximately 6" (152 mm) from the edge then continue grouting. At that time, the previous 6" (152 mm) can be cleaned, etc.

Application for Grouting (cont.)

7. Always check the installation the following day to be sure the tile is completely clean. If the tile is tacky or has a light film on the surface, use granular dishwasher powder with the white nylon pad.

Note: Actual color may vary slightly from color chart. All epoxies tend to darken or discolor (yellow) as a result of exposure to ultraviolet light, and occasionally incandescent and fluorescent light. This discoloration is most noticeable with white or lighter colors.

Preparation for Tile Setting

When used as a mortar, the substrate must be dry, clean, sound and dimensionally stable. It must be free from loose particles, wax, sealers, curing compounds, grease, efflorescence or any foreign materials that will inhibit adhesion.

- Substrates must be stable, solid, and structurally sound.
- Concrete substrates must have a fine broom finish.
- Thoroughly brush or vacuum surface to insure that loose dust and dirt are removed.
- Concrete floors must be fully cured (28 days) and free from hydrostatic pressure.

When using over plywood, a 19/32" (15 mm) exterior grade plywood substrate should be installed with 1/4" (6 mm) gaps between sheets, over 19/32" (15 mm) plywood or 1" (25.4 mm) nominal board with joist spacing 16" (406 mm) or maximum. The gap between the plywood underlayment will be filled with B-7000 Epoxy Mortar & Grout as it is applied to set tile. For other substrates, contact the ProSpec Technical Services.

Mixing

Refer to the mixing section. Use ProSpec tile setting mortar in lieu of ProColor Grout.

Application for Tile Setting

All installations must conform to the current specifications in ANSI 108.6 and the current TCNA Handbook for Ceramic Tile Installations.

1. Select the proper trowel size: the proper trowel size is one that will insure a minimum of 3/32" (2 mm) layer of epoxy between the tile and substrate after the tile has been set. The proper trowel should also result in a minimum 80% coverage for interior or dry areas; 95% coverage when used for exterior or wet areas or when setting natural stone.
2. With pressure, apply a skim coat to the substrate with the flat edge of the trowel.
3. Follow up with a heavier coat so the finished setting bed will be 3/32" (2 mm) after the proper setting.
4. Comb with the recommended notched trowel. Comb only that part of the bed that can have tile put on it before skinning occurs.
5. For deep lugged tile, or exterior installations, back buttering along with the proper size notched trowel is required to achieve the 95% coverage.
6. Press tiles into place and slide perpendicular to the combed ridges to insure proper coverage.
7. Tiles may be adjusted up to 15 minutes after placing.
8. Tiles must be firmly set before grouting. This requires 16 to 24 hours.

Job Mockups

Bonsal American, Inc. requires that when its PROSPEC products are used in any application or as part of any system that includes other manufacturers' products, the contractor and/or design professional shall test all the system components collectively for compatibility, performance and long-term intended use in accordance with pertinent and accepted industry standards prior to any construction. Written documentation of the tests performed shall be satisfactory to the design professional and contractor. Test results must include the means and methods of application, products used, project-specific conditions being addressed, and standardized tests performed for each proposed system or variation.

Cleaning

Use soapy water to clean all tools immediately after use. Dried material must be mechanically removed.

Maintenance

B-7000 Epoxy Mortar & Grout is 100% solid, acid resistant and will not stain like typical cement based grouts. No sealing required giving you maintenance and cleaning with ease. Cleaning B-7000 Epoxy Mortar & Grout joints can be done with a mild soap and water or a neutral pH cleaner followed by a clean water rinse.

Do not use harsh chemicals, solvent based, enzyme based, or no rinse cleaners. The suitability of the cleaning products and their intended use must be determined by the user, who assumes all risks and liabilities.

Limitations

- Do not use B-7000 Epoxy Mortar & Grout with ProColor Unsanded Tile Grout. It was only designed to be used with ProColor Sanded Grout.
- Do not use as an outdoor grout; the color can be affected by ultraviolet radiation.
- Do not use in areas where organic ketone solvents are used.
- Do not use partial units. Units A and B must be used together in their entirety to ensure product performance.

Coverage

When used as grout:

Approximate Sq Ft Grout Coverage / 9.6 lb (4.4 kg) unit + 25 lb ProColor Sanded Grout						
Tile Size L x W x Thickness (millimeters)	Grout Joint Width					
	1/16" (1.6 mm)	1/8" (3.2 mm)	3/16" (4.8 mm)	1/4" (6.4 mm)	3/8" (9.5 mm)	1/2" (12.7 mm)
1" x 1" x 1/4" (25 x 25 x 6 mm)	96 sq ft (8.9 m ²)	48 sq ft (4.5 m ²)	32 sq ft (3.0 m ²)	24 sq ft (2.2 m ²)	16 sq ft (1.5 m ²)	12 sq ft (1.1 m ²)
2" x 2" x 1/4" (51 x 51 x 6 mm)	192 (17.8)	96 (8.9)	64 (5.9)	48 (4.5)	32 (3.0)	24 (2.2)
4 1/4" x 4 1/4" x 1/4" (102 x 102 x 6 mm)	408 (37.9)	204 (19.0)	136 (12.6)	102 (9.5)	68 (6.3)	51 (4.7)
4" x 8" x 1/2" (102 x 203 x 13 mm)	256 (23.8)	128 (11.9)	85 (7.9)	64 (5.9)	43 (4.0)	32 (3.0)
6" x 6" x 1/4" (152 x 152 x 6 mm)	576 (53.5)	288 (26.8)	192 (17.8)	144 (13.4)	96 (8.9)	72 (6.7)
6" x 6" x 1/2" (152 x 152 x 13 mm)	288 (26.8)	144 (13.4)	96 (8.9)	72 (6.7)	48 (4.5)	36 (3.3)
8" x 8" x 3/8" (203 x 203 x 10 mm)	512 (47.6)	256 (23.8)	128 (11.9)	128 (11.9)	64 (5.9)	64 (5.9)
8" x 8" x 1/2" (203 x 203 x 13 mm)	384 (35.7)	192 (17.8)	170 (15.8)	96 (8.9)	85 (7.9)	48 (4.5)
12" x 12" x 3/8" (305 x 305 x 10 mm)	768 (71.3)	384 (35.7)	256 (23.8)	192 (17.8)	128 (11.9)	96 (8.9)
13" x 13" x 5/16 (330 x 330 x 7.9 mm)	996 (92.5)	498 (46.3)	332 (30.8)	249 (23.1)	166 (15.4)	125 (11.6)
16" x 16" x 5/16 (406 x 406 x 7.9 mm)	1226 (113.9)	613 (56.9)	408 (37.9)	307 (28.5)	204 (19.0)	153 (14.2)
18" x 18" x 5/16 (457 x 457 x 7.9 mm)	1380 (128.2)	690 (64.1)	460 (42.7)	345 (32.1)	230 (21.4)	173 (16.1)
20" x 20" x 5/16 (508 x 508 x 7.9 mm)	1532 (142.3)	766 (71.2)	511 (47.5)	383 (35.6)	256 (23.8)	192 (17.8)
24" x 24" x 5/16 (610 x 610 x 7.9 mm)	1840 (170.9)	920 (85.5)	613 (56.9)	460 (42.7)	307 (28.5)	230 (21.4)

Note: The figures shown in this table are based on the joint being filled to the full depth. Actual coverage may vary.

See prospec.com for full grout calculator.

Coverage (cont.)

When used as mortar:

B-7000 Epoxy Mortar & Grout	Approximate Coverage per 3.8 lb unit
1/4" x 1/4" x 1/4" square notch trowel (6 mm x 6 mm x 6 mm)	25 ft ² (2.3 m ²)
1/4" x 1/4" x 3/8" square notch trowel (6 mm x 6 mm x 10 mm)	18 ft ² (2.3 m ²)

Note: Coverage depends on the type and condition of the trowel and substrate.

6. TECHNICAL SERVICES

Technical assistance:

Information is available by calling ProSpec Technical Services Hotline (hours 8:00 AM to 5:00 PM EST):

Toll Free: 1.800.334.0784

Fax: 1.704.945.0309

Technical and safety literature:

To acquire technical and safety literature, please visit our website at www.prospec.com.

¹ ProSpec products can contribute to LEED credits within the Material Resource, (Recycled Content & Regional Materials) and Indoor Environmental Quality (Low Emitting Materials).



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