

B-4050 Multipurpose Tile Adhesive

1. PRODUCT NAME

ProSpec® B-4050 Multipurpose Tile Adhesive

2. MANUFACTURER

H.B. Fuller Construction Products Inc.
1105 South Frontenac Street
Aurora, IL 60504-6451 U.S.A.

1-800-552-6225 Office
1-800-952-2368 Fax
prospec.com

3. PRODUCT DESCRIPTION

ProSpec® B-4050 Multipurpose Tile Adhesive is a white acrylic based adhesive developed for the interior installation of ceramic tile and natural stone on walls, floors and countertops.

Features and Benefits

- Ready to use - no mixing required
- Good water resistance
- Excellent slip resistance
- Quick initial set
- Low odor
- Nonflammable
- Excellent workability
- Bright white color, wet and dry
- Creamy consistency
- Interior only
- Long open time
- Freeze / thaw stable
- Exceeds ANSI A136.1 Type I & II

Uses

For installation of:

- Ceramic tile
- Porcelain tile
- Quarry tile
- Flat backed natural stone
- Cork underlayment

For installation over:

- Countertops
- Properly cured plaster (walls only)
- Properly cured and finished concrete
- Wherever organic adhesives are specified to install ceramic tile
- Tile backerboard
- Gypsum dry wall board (walls only)
- Exterior grade plywood (interior floors only)

Note: For other substrates, contact ProSpec® Technical Services.

SAFETY

READ THE SAFETY DATA SHEET (SDS) BEFORE USING THIS PRODUCT. SDS Sheets are available on our website prospec.com or contact Medical Emergency Phone Number (24 Hours): 1-888-853-1758, Transport Emergency Phone Number (CHEMTREC):1-800-424-9300 or contact ProSpec® Technical Services at 1-800-832-9023 (7:00AM to 5:00PM M-F, Central US Time).

CAUTIONS

Read complete cautionary information printed on product container prior to use. For medical emergency information, call 1-888-853-1758.

This Product Data Sheet has been prepared in good faith on the basis of information available at the time of publication. It is intended to provide users with information about and guidelines for the proper use and application of the covered ProSpec® brand product(s) under normal environmental and working conditions. Because each project is different, H.B. Fuller Construction Products Inc. cannot be responsible for the consequences of variations in such conditions, or for unforeseen conditions.

4. TECHNICAL DATA

B-4050 Multipurpose Tile Adhesive	Typical Values	ANSI A136.1
Shear Strength Wet "Type I"	> 95 psi (0.7 MPa)	> 95 psi (0.3 MPa)
Shear Strength Wet "Type II"	99 psi (0.7 MPa)	20 psi (0.1 MPa)
Mold Resistance	No growth	Must not support growth
Stain Resistance	Pass	< 70% penetration
Color	White	n/a
Impact	Pass	Must remain bonded
Heat Resistance	Pass	> 10 lb static load / 120°F / 24 hr

Greater than: > Greater than or equal to: ≥ Less than: < Less than or equal to: ≤

VOC

< 8 g/l

LEED® Eligibility¹

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

Product Enhancement



Micro Defense® Technology - Special antimicrobial additive that prevents the growth of mold and mildew

Packaging

1 gal (3.8 L) (4/case) - Product #65464531
3.5 gal (13.2 L) - Product #65464532

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.

5. INSTALLATION

Preparation

- Surface must be clean, dry, hard and free from dirt, loose particles, wax, sealers, curing compounds, grease, paint, efflorescence, and any foreign materials that will inhibit adhesion.
- New concrete must be fully cured (28 days) and have a broom finish. Smooth troweled surfaces should be profiled or scarified to insure bond.
- After cleaning and profiling, test the moisture vapor emission rate, reference ASTM F 1869. This rate cannot exceed 5 - 6 lb. Inspect surfaces that the tile will be applied to and accessories to be used.
- Surfaces must be structurally sound, free of movement and dimensionally stable. These surfaces must be within the tolerances of trueness and plumbness. B-4050 Multipurpose Tile Adhesive is only to be applied in a thin layer and is not designed for leveling.

Note: Test natural stone with B-4050 Multipurpose Tile Adhesive prior to use. Staining may occur.

Notify the architect or other designated authority in writing of any defects or conditions that prevent a satisfactory tile installation (see ANSI A108.4). Interior wood or backerboard subfloors: (Light traffic, residential floors only). Exterior Grade Plywood Subfloors - See the most current edition of TCNA Methods Handbook F142.

- Plywood double wood floor required.
- Maximum joist spacing: 16" (406 mm) on center (OC).
- Subfloor: 19/32" (15 mm) exterior grade plywood or 1" (25 mm) nominal boards.
- Underlayment: 19/32" (15 mm) exterior grade plywood or backerboard with 1/8" (3 mm) gaps between sheets. These gaps will be filled with the B-4050 Multipurpose Tile Adhesive when it is applied to set the tile. Plywood must be a Group I CC plugged or better.
- Maximum variation in surface shall not exceed 1/8" (3 mm) in 10' (3 m) from required plane.
- Use 6 D ring shank nails in overlay at 6" (152 mm) OC along the sheet edge and at 8" (203 mm) OC throughout the sheet.
- Overlap all joints of the subfloor.
- Damp mop floor to remove any dust or sawdust. Allow to dry before applying B-4050 Multipurpose Tile Adhesive.
- Shower walls using tile backerboard:
- When using a tile backerboard on shower walls, attach the backerboard to the studs using non-corrosive fasteners. The backerboard must be stopped a minimum of 1/4" (6 mm) from the top of the mud bed.
- A flexible sealant must then be placed between the wall and floor to prevent deterioration of the B-4050 Multipurpose Tile Adhesive. Do not use B-4050 Multipurpose Tile Adhesive on shower floors.
- Expansion joints are necessary for interior installations exceeding 20' (6 m) to 25' (7.6 m) in each direction. Expansion joints shall be located (refer to the TCNA Handbook for Ceramic Tile Installation):
- Where tile work abuts restraining surfaces, such as perimeter walls, curbs, columns, pipes and the like.

Preparation (cont.)

- Shower walls using tile backerboard (cont):
- Directly over joints in structural floors 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.

Job Mockups

The manufacturer 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.

Application

All installations must conform to the current specifications in ANSI A108.4 and the TCNA Handbook for Ceramic Tile Installations. Tile, adhesive and substrate must be above 40°F (4°C) for 48 hours before and after installation.

3. Select the proper trowel size. The proper trowel is one that will insure a minimum of 1/32" (1 mm) layer of adhesive between the tile and substrate after the tile has been properly set. The proper trowel should also result in a minimum of 80% coverage for dry areas and 95% in damp areas (shower walls).
2. For walls in damp areas and on porous, water sensitive surfaces such as gypsum, apply B-4050 Multipurpose Tile Adhesive as a skim coat using the flat side of the trowel. Allow to dry (2 - 4 hours) then apply more adhesive over the skim coat using the notched side of the proper trowel. Cut away 1/4" (6 mm) of the wallboard above the tub. Caulk this area and around pipes and other openings with a sealant. Do not use B-4050 Multipurpose Tile Adhesive to set grab bars or fixtures.
3. Apply B-4050 Multipurpose Tile Adhesive with the proper trowel. Adhesives are flexible and thus are not designed to be applied in thick layers. Trowel no more than can have tile applied in 35 - 50 minutes or before the adhesive has formed a skin. Once skinned, scrape off the adhesive and re-trowel with fresh material. Skinning time will vary with temperature, humidity and substrate.
4. Press and twist the tile into the wet adhesive and use a wood or rubber beating block to set. Occasionally remove a tile to insure proper coverage.
5. Tile may be grouted as soon as the adhesive is set to where the tile cannot be moved, typically 24 - 48 hours. Temperature, humidity, substrate, tile and adhesive thickness will affect the drying time.
6. Grout with ProSpec® ProColor Sanded Grout, ProSpec® ProColor Unsanded Grout or ProSpec® B-7000 Epoxy Mortar & Grout.
7. B-4050 Multipurpose Tile Adhesive can be cleaned from the tools and tile using soapy water before it has dried. Dried B-4050 Multipurpose Tile Adhesive can be removed using mineral spirits.

Limitations

- Do not use when installing button or lugged back ceramic tile on floors. For those applications use ProSpec® tile setting mortars or ProSpec® B-7000 Epoxy Mortar & Grout.
- Do not use when hydrostatic pressure exists or on a slab where the relative humidity in the concrete, per ASTM F 2170 or ASTM F 2420, is > 85% RH or the moisture vapor transmission rate, per ASTM 1869, is > 6 lb / 1000 ft / 24 hr.
- Do not use B-4050 adhesives in areas subject to continual moisture exposure.
- Do not use in steam rooms.
- Do not use when tile sizes are greater than 12" x 12" (305 mm x 305 mm).
- Do not use over non-absorptive surfaces.
- Do not use with moisture sensitive tile or white or translucent natural stone.
- Do not apply to hardwood, luan plywood, parquet, OSB, plastic, metal, fiberglass, or vinyl flooring.

Coverage

Coverage per 1 gal

Notch Trowel Size	Approximate Coverage
3/16" x 5/32" (5 mm x 4 mm) V notch trowel	55 - 70 ft ² (5.1 - 6.5m ²)
1/4" x 1/4" (6 mm x 6 mm) Square notch trowel	25 - 40 ft ² (2.3 - 3.7 m ²)

These coverages are approximations and may vary with type and condition of trowel and substrate.

6. AVAILABILITY

To locate ProSpec® products in your area, please contact:
Phone: 800-832-9002
Website: prospec.com

7. WARRANTY

For warranty details, see your sales associate or prospec.com

8. MAINTENANCE

Not applicable

9. TECHNICAL SERVICES

Technical Assistance

Information is available by calling the Technical Support Hotline.
Toll Free: 800-832-9023
Fax: 630-952-1235

Technical and safety literature

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

10. FILING SYSTEM

Division 9

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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Data Sheets are subject to change without notice. For the latest revision, check our website at prospec.com



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