



Wet Area Solutions
(Aust) Pty Ltd



Georgia-Pacific

DensShield[®]
Tile Backer



Installation Guide



Georgia-Pacific

DensShield[®]
Tile Backer

Dramatically Outperforms Other Tile Substrates

DensShield® Tile Backer has a long history of successful performance, with hundreds of millions of square feet installed. DensShield® Tile Backer is a substrate that, when properly installed, resists the effects of water or moisture, making it excellent for protecting both tile installations and stud cavities. DensShield® Tile Backer is composed of a water-resistant treated core that is covered front and back with fibreglass mats. The coated fibreglass mats are permanently integrated with the core during manufacturing to help prevent delamination problems. On the face side of DensShield® Tile Backer is a heat-cured acrylic coating which stops moisture at the surface and retards vapour transmission, protecting the wall cavity and floor substrate from moisture intrusion. Unlike cementitious backer boards DensShield® Tile Backer does not require an additional moisture barrier.

- 1** Excellent substrate for floors, walls and countertops
- 2** Built in moisture barrier – stops moisture at the surface
- 3** Mould resistant – when tested as manufactured per ASTM D3273
- 4** Scores and snaps easily with a standard utility knife
- 5** Lifetime limited warranty when used in residential tile installations and a 20 year limited warranty when used in commercial applications



DensShield® Tile Backer is lighter and easier to install than leading cement and fibre cement board brands (12.7 mm comparison). DensShield® Tile Backer provides excellent dimensional stability and strength so it can be installed parallel or perpendicular to the framing in walls and ceilings.

DensShield® Tile Backer was the first tile backer listed as a GREENGUARD microbial resistant product by a leading third- party organization, GREENGUARD Environmental Institute.

This listing means DensShield® Tile Backer, which features fibreglass mats instead of the paper facings used on the surface of traditional gypsum tile backers, resists mould growth. The microbial resistant test is based on ASTM Standard D 6329-98, a testing standard set by ASTM International, which develops testing guidelines and procedures for building materials, products, systems, and services.

5 Reasons to use DensShield® Tile Backer

Primary Uses

DensShield® Tile Backer is excellent for tile and non-tile installations in wet and non-wet applications and in areas of high humidity. 15.9 mm DensShield® Fireguard® Tile Backer is also classified for use in appropriate fire-rated assemblies. It is ideal for tile walls, ceilings, countertops and residential and light commercial floor applications in high moisture areas.

DensShield® Tile Backer panels provide an excellent backer for sidewalls and ceilings in bathtubs and shower installations, where it provides an even, solid substrate for tile. DensShield® Tile Backer may also be finished with paint or wall textures for non-tile areas that require superior fire and moisture resistance.

DensShield® Tile Backer 8.0 mm, 10.0mm and 12.7mm can be used in floor applications. These thicknesses passed the Robinson Floor Test, the industry standard floor test for light commercial ratings. The Robinson Floor Test (ASTM C 627) is designed to determine how a tile assembly holds up under extreme wear and weight conditions. DensShield® Tile Backer achieves the same light commercial rating as cement and fibre cement backers.

DensShield® Tile Backer is for INTERIOR APPLICATIONS ONLY.

Materials Needed

DensShield® Tile Backer panels come in a variety of sizes

- for walls and ceilings, use 8mm, 10mm, 12.7, or 15.9 thickness
- for countertops and floorings, use 8mm, 10mm or 12.7 mm thickness
- no additional moisture barrier needed
- 50 mm fiberglass mesh tape
- waterproof flexible silicone sealant
- flexible tile adhesive (AS4992/ISO13007 approved)



Fastener Guide Chart

Application	Fastener	Min. Length	Spacing
Walls & Ceilings	Galvanised roofing nail	40 mm	150 mm o.c. along framing
Walls & Ceilings (wood frame)	Buglehead, rust resistant, coarse thread, sharp point screw	30 mm	150 mm o.c. along framing
Walls & Ceilings (metal frame)	Buglehead, rust thread, sharp point rust resistant drywall screw	30 mm	150 mm o.c. along framing
Floors	Galvanized roofing nail	30 mm	200 mm o.c. in both directions
Floors	Buglehead, rust resistant, coarse thread, sharp point screw	30 mm	200 mm o.c. in both directions
Floors 8.00mm only	8.0 mm crown, corrosive resistant chisel point staples	20 mm	30 mm o.c. on edges 100 mm o.c. in field

Note: For walls, fasteners should penetrate at least 20 mm into wood framing. Contact fastener manufacturer for proper selection of corrosion resistance.

Tub/Shower Sidewalls or Ceilings

Walls or Ceilings

Position DensShield® Tile Backer panel next to framing with the coated (grey) face away from studs. Cut panel to required size and make cutouts. Fit ends and edges closely.

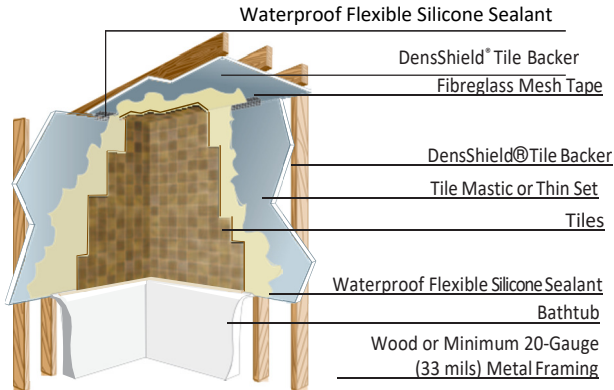
DensShield® Tile Backer may be cut by scoring and snapping with a utility knife, working from the grey face side. Board may be installed either parallel or perpendicular to framing for both wall and ceiling applications.

- Steel or wood framing for walls should be spaced no greater than
 - 400mm o.c. without blocking using 8mm
 - 450mm o.c. when using 10mm.
 - 610 mm o.c. with blocking when using 12.7 mm
 - 600 mm o.c. with 15.9 mm (20 gauge [33 mils] steel studs are required for tile applications).
- Fasteners should be spaced 150 mm o.c. for walls and ceilings. Drive fasteners flush with coated surface. Do not countersink. See Fastener Guide Chart (above).

5

- DensShield® Tile Backer has a built-in moisture barrier. Does not require an additional moisture barrier.
- 50 mm fiberglass mesh tape—embed in a skim coat of material used to set tiles on all joints and corners that are to receive tile; caulk corners and edges prior to addition of fiberglass mesh tape. Seal penetrations and abutments to dissimilar materials.

DS001



Shower Pan

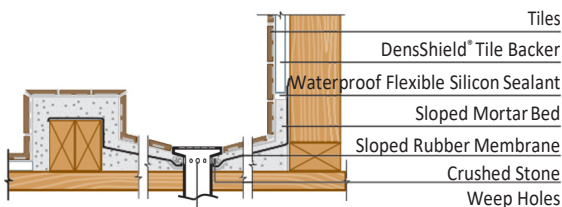
Install DensShield® Tile Backer on walls according to assembly.

Note: Shower pan or rubber membrane must be adequately sloped to the open drain or weep hole detail to permit proper water drainage. Leave a 3 mm gap between

DensShield® Tile Backer and the shower pan.

- DensShield® Tile Backer is not to be used in shower curbs.
- DensShield® Tile Backer panels can be installed in the shower pan if part of an approved system

DS002

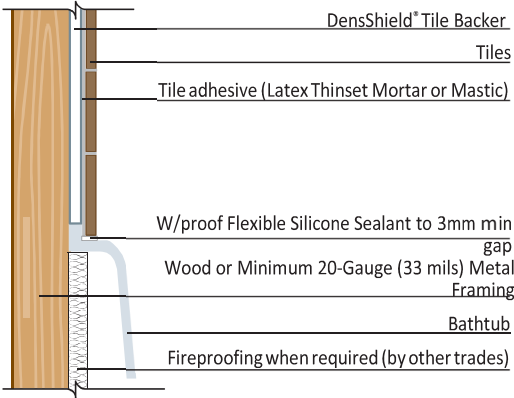


Bathtub or Shower Receptor

Apply DensShield® Tile Backer either horizontally or vertically on walls as shown in DS001.

Leave a 3 mm gap between DensShield® Tile Backer and the tub deck and completely fill the space between tile and tub with a waterproof flexible silicone

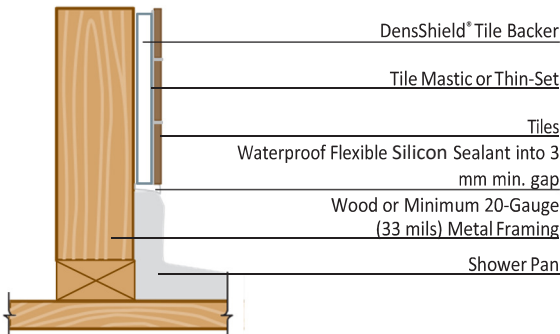
DS003



Pre-Formed Shower Pan

Leave a 3 mm gap between DensShield® Tile Backer and the tub deck and completely fill the space between tile and tub with a waterproof flexible silicone sealant.

DS004



Floors Residential & Light Commercial

Residential & Light Commercial Floors

8.0 mm, 10mm and 12.7 mm DensShield® Tile Backer can be used as a tile substrate in floor tile applications for residential and light commercial use as defined in the *Handbook for Ceramic Tile Installation*, published by the Tile Council of North America.

Laminate DensShield® Tile Backer panels, coated grey side up, to subfloor using a flexible tile adhesive (AS4992/ISO13007 approved) liberally applied with a 6 mm square-tooth notched trowel.

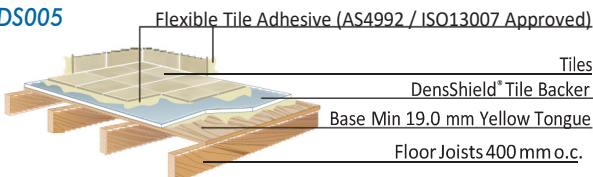
- Embed DensShield® Tile Backer into mortar while still pliant (do not exceed open time)
- Butt DensShield® Tile Backer panels tightly together
- Stagger DensShield® Tile Backer joints over subfloor joints
- Fasten DensShield® Tile Backer panels to subfloor (see Fastener Guide Chart on page 5)
- Avoid nailing into floor joists on new construction to prevent nail pop-ups
- Space fasteners no greater than 200 mm o.c. in both directions
- Drive fasteners flush with the surface—do not countersink
- Apply 50 mm fibreglass mesh tape over joints. Embed with Flexible Tile Adhesive (AS4992 / ISO13007 Approved).

Apply flooring-grade tile with Flexible Tile Adhesive (AS4992/ISO13007 approved). Full-thickness thresholds should be used and butted against the DensShield® Tile Backer panels flush with the tile surface.

Important: for residential applications, use a 50 mm x 50 mm or larger floor-grade tile.

- Use Epoxy Floor Grout (ANSI A118.6).
- DensShield® Tile Backer is not to be used in conjunction with passive solar heat systems or in heated flooring systems that are consistently over 50° C (120° F).

DS005



Subfloor & Joist Spacing Recommendations

Minimum Subfloor Thickness	Minimum Joist Spacing
19.0mm Yellow tongue	400 mm o.c. joists
19.0mm Yellow tongue	500 mm o.c. engineered lumber
19.0 mm Yellow tongue	610 mm o.c. engineered lumber

*19 mm OSB is acceptable.

Countertops Residential

Countertops

Yellow tongue must be installed flat and level. Framing spacing should not exceed 610 mm o.c. Install minimum 12.7 mm exposure 1 yellow tongue on top of supports spaced a maximum of 610 mm o.c. Provide support on overhangs on cantilever counters to prevent movement.

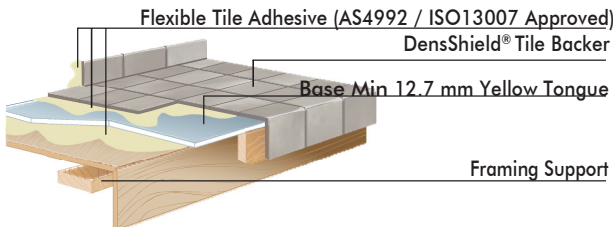
Apply levelling bed of Flexible Tile Adhesive (AS4992 / ISO13007 Approved) to yellow tongue using 6.0mm notched trowel.

Laminate clean, dry DensShield® Tile Backer to base (grey side up) and fasten every 150 mm to 203 mm o.c. in both directions into plywood while levelling bed is still fluid. Use either 30 mm galvanized roofing nails or 30 mm rust-resistant drywall screws. Stagger joints of DensShield® Tile Backer panels with those of the plywood base.

Butt DensShield® Tile Backer joints tightly. Tape all joints and corners using 50 mm wide self-adhering fibreglass mesh tape. Embed tape with Flexible Tile Adhesive (AS4992 / ISO13007 Approved).

Install tile, expansion and control joints and grout in accordance with ANSI A108. Use Flexible Tile Adhesive (AS4992 / ISO13007 Approved) to set tile.

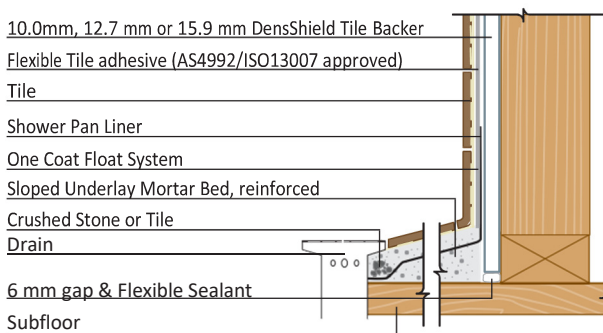
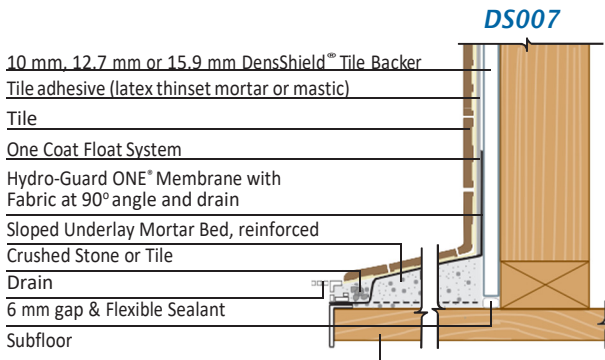
DS006



One Coat Float Tile Assembly

DensShield® Tile Backer can be installed as a baseboard for a traditional reinforced floated wall tile system attached to the framing. DensShield® Tile Backer panels may be hung either vertically or horizontally for wall applications.

- Grey coated side should always face out, away from the studs.
- Framing should be spaced no greater than 400 mm o.c.
- Attach DensShield® Tile Backer panels spacing fasteners 150 mm o.c. along studs for wood or metal framing.
- For shower pan receptors with membranes, the lath membrane shall be installed in a weather board fashion over the pan membrane.
- Attach membrane and lath per lath and membrane manufacturers' guidelines. Apply mortar bed per TCNA assembly W231. Membrane (ANSI A-2.1.8) shall be installed such that water is continually sloped toward the drain.





Georgia-Pacific
Gypsum

U.S.A. – Georgia-Pacific Gypsum LLC Canada – Georgia-Pacific Canada
LP

Sales Information & Order Placement

U.S.A. Midwest: **1-800-876-4746**
West: **1-800-824-7503**
South: **1-800-327-2344**
Northeast: **1-800-947-4497**

CANADA Canada Toll Free: **1-800-387-6823**
Quebec Toll Free: **1-800-361-0486**

AUSTRALIA **1300 526 879** (Wet Area Solutions (Aust) Pty Ltd)

Technical Information

Georgia-Pacific Gypsum Technical Hotline
U.S.A. and Canada: **1-800-225-6119**
www.gpgypsum.com



TRADEMARKS

DENSSHIELD®, BUILDING REPUTATIONS TOGETHER and the GEORGIA-PACIFIC logo are trademarks owned by or licensed to Georgia-Pacific Gypsum LLC. HYDRO-GUARD ONE is a trademark owned by Mer-Kote Products, Inc. STURD-I-FLOOR is a trademark owned by APA-The Engineered Wood Association. TCNA Logo is a trademark of Tile Council of North America. USGBC and related logo is a trademark owned by the U.S. Green Building Council and is used by permission. GREENGUARD is used under license through the GREENGUARD environmental Institute.

UPDATES AND CURRENT INFORMATION

The information in this document may change without notice. Visit our website at www.gpgypsum.com for updates and current information.

WARRANTIES, REMEDIES AND TERMS OF SALE

For current warranty information for this product, please go to www.gpgypsum.com and select the product for warranty information. All sales of this product by Georgia-Pacific are subject to our Terms of Sale available at www.gpgypsum.com.

CAUTION: For product fire, safety and use information, go to gp.com/safetyinfo. HANDLING AND USE

CAUTION: This product contains fiberglass facings which may cause skin irritation. Dust and fibres produced during the handling and installation of the product may cause skin, eye and respiratory tract irritation. Avoid breathing dust and minimize contact with skin and eyes. Wear long sleeve shirts, long pants and eye protection. Always maintain adequate ventilation. Use a dust mask or NIOSH/MSHA approved respirator as appropriate in dusty or poorly ventilated areas. For additional product fire, safety and use information go to www.gp.com/safetyinfo or call 1-800-225-6119.

FIRE SAFETY CAUTION

Passing a fire test in a controlled laboratory setting and/or certifying or labelling a product as having a one-hour, two-hour, or any other fire resistance or protection rating and, therefore, as acceptable for use in certain fire rated assemblies/systems, does not mean that either a particular assembly/system incorporating the product, or any given piece of the product itself, will necessarily provide one-hour fire resistance, two-hour fire resistance, or any other specified fire resistance or protection in an actual fire. In the event of an actual fire, you should immediately take any and all actions necessary for your safety and the safety of others without regard for any fire rating of any product or assembly/system.

FOR FURTHER TECHNICAL INFORMATION, VISIT

www.wetareas.com.au
www.buildgp.com/product/densshield-tile-backer/