



HardieBacker®

CEMENT BOARD

Installation Guide

BACKERBOARD FOR

WALLS | FLOORS | COUNTERTOPS

2014

James Hardie, the world leader in the manufacturing and development of fiber cement building products, has produced this Installation Guide to help customers with the installation of James Hardie® HardieBacker® Cement Board.

You'll find general product information in this guide, but in the context of the proper preparation for, and quality installation of: HardieBacker ¼" Cement Board, and HardieBacker 500 Cement Board.

This manual is meant to be read in conjunction with project drawings and specifications, applicable building codes and relevant compliance documents. The details in this document outline James Hardie installation requirements and should be reviewed by all parties who are responsible for installing James Hardie products on a project.

This manual is subject to periodic re-examination and revision. For more information on the current status of these documents please visit www.hardiebacker.com. The reader is responsible for ensuring that they are using the most current information.



HardieBacker®



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Product Info

HardieBacker® Cement Board with MoldBlock® technology is designed for use as a tile backer substrate for floor and countertop applications. It provides an exceptional bonding surface for tile, while protecting against moisture damage and mold growth.

HardieBacker®500 and HardieBacker® 1/4 in. Cement Board:

Available in 3ft. x 5ft. and 4ft. x 8ft. sheets

HardieBacker 1/4 in. Cement Board used for floors and countertops

HardieBacker 500 Cement Board (0.42in.) used for walls

Basic Composition: 90% Portland cement and sand with selected additives:

NO asbestos

NO formaldehyde

NO gypsum

NO paper facing or abrasive aggregate

HardieBacker® CERTIFICATIONS



Physical/Chemical Properties

1/4 in. HardieBacker® Cement Board

Product Specs

Sheet sizes:

3ft. x 5ft. (EZ Grid® recessed fastener pattern)
4ft. x 8ft.

Thickness:

1/4in

Weight:

1.9 lbs/psf (9.3kg/m²)
Complies with ASTM C1288 and
ANSI A118.9

HardieBacker 1/4in. Cement Board (0.25in.) is mainly used for floors and countertops

Mold Resistance

HardieBacker 1/4in. Cement Board with MoldBlock technology passes both industry standard mold tests with a perfect score. In independent tests, HardieBacker board achieves a 0 on the ASTM G21 (best possible score for mold resistance) and a 10 on the ASTM D3273 (best possible score against mold growth).

Flexural

Flexural Strength at Equilibrium Moisture Content (ASTM C1185)
2100 psi (14 MPa)

Compressive

Compressive Strength at Equilibrium Moisture Content (ASTM D2394 steel plate substrate) 7000 psi (48 MPa)

Thermal Values (ASTM C177)

Thermal Conductivity:

k-value 7.80 Btu/(ft² x h x °F)

Thermal Resistance:

R-value 0.13 ft² x h x °F/Btu

Non-Combustibility

When tested in accordance with ASTM Method E-136, the product is recognized as a non-combustible building material in ESR-2280.

Surface Burning

When tested in accordance with ASTM Method E-84:

Flame Spread: 0
Fuel Contributed: 0
Smoke Developed: 5

Fire Rated Assemblies

HardieBacker 1/4in. Cement Board can be used as a component in one-hour fire-resistive construction. Consult James Hardie Technical Services at 1-800-942-7343.

HardieBacker® 500 Cement Board

Product Specs

Sheet sizes:

3ft. x 5ft. and 4ft. x 8ft.

Thickness:

0.42in. (nominal 1/2 in.)

Weight:

2.6 lbs/psf (12.7kg/m²)
Complies with ASTM C1288 and ANSI A118.9

HardieBacker 500 Cement Board (0.42in.) is used for walls and floors

Mold Resistance

HardieBacker 500 Cement Board with MoldBlock technology passes both industry standard mold tests with a perfect score. In independent tests, HardieBacker board achieves a 0 on the ASTM G21 (best possible score for mold resistance) and a 10 on the ASTM D3273 (best possible score against mold growth).

Flexural

Flexural Strength at Equilibrium Moisture Content (ASTM C1185)
1700 psi (12 MPa)

Compressive

Compressive Strength at Equilibrium Moisture Content (ASTM D2394 steel plate substrate) 6500 psi (45 MPa)

Thermal Values (ASTM C177)

Thermal Conductivity:

k-value 20.07 Btu/(hr-ft²-°F)

Thermal Resistance:

R-value 0.05 hr-ft²-°F/Btu

Non-Combustibility

The product is recognized as a non-combustible building material in ESR-2280.

Surface Burning

When tested in accordance with ASTM Method E-84:

Flame Spread: 0
Fuel Contributed: 0
Smoke Developed: 5

Fire Rated Assemblies

HardieBacker 500 Cement Board may be used as a component in one-hour fire-resistive wall construction. Consult James Hardie Technical Services at 1-800-942-7343.

Safety & Precautions

Protect your job and yourself by following these rules of thumb for HardieBacker board installation. It will allow for the highest quality installation and protection of you and those around the work site.

Storage and handling

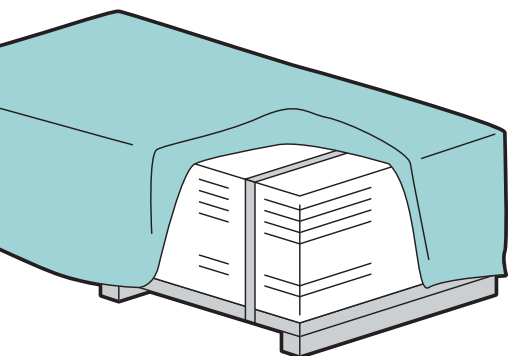
Store flat and keep dry and covered prior to installation.

Carry boards vertically upright by the edges.

Protect edges and corners from breakage.

Installing product wet or saturated may result in gaps forming at the joints.

James Hardie is not responsible for damage caused by improper storage and handling of the product.



Cutting Instructions

Outdoors

Position cutting station so that wind will blow dust away from user and others in working area.

Use one of the following cutting tools:

BEST Score and snap

BEST Shears (manual, electric, or pneumatic)

BETTER Dust reducing circular saw equipped with a HardieBlade® saw blade and HEPA vacuum extraction

GOOD Dust reducing circular saw with HardieBlade saw blade (only use for low to moderate cutting)

Indoors

Cut only using score and snap, or shears (manual, electric or pneumatic)

Position cutting station in well-ventilated area



NEVER use high-speed power tools (e.g. saws, grinders, etc.) to cut James Hardie products indoors as they may generate excessive silica dust.

NEVER dry sweep. Use wet suppression methods or HEPA vacuum for clean-up.

ALWAYS wear a properly-fitted, NIOSH-approved dust mask or respirator (e.g. N-95), in accordance with applicable government regulations and manufacturer instructions, to further limit respirable silica exposures.

WARNING AVOID BREATHING SILICA DUST: James Hardie products contain respirable crystalline silica, which is known to the State of California to cause cancer and is considered by IARC and NIOSH to be a cause of cancer from some occupational sources. Breathing excessive amounts of respirable silica dust can also cause a disabling and potentially fatal lung disease called silicosis, and has been linked with other diseases. Some studies suggest smoking may increase these risks. During installation, use fiber cement shears for cutting or, use score & snap technique. During clean-up, use HEPA vacuums or wet cleanup methods—never dry sweep. For further information, refer to our installation instructions and Material Safety Data Sheet available at www.jameshardie.com or by calling 1-800-9HARDIE (1-800-942-7343). FAILURE TO ADHERE TO OUR WARNINGS, MSDS, AND INSTALLATION INSTRUCTIONS MAY LEAD TO SERIOUS PERSONAL INJURY OR DEATH.

Cutting Methods

Score and Snap

How to Cut

Use a straight edge as a guide to score the board's face and snap upward along the score line. We recommend using a carbide-tipped scoring knife, but a utility knife may also be used. The use of shears (manual, electric or pneumatic) is also acceptable.



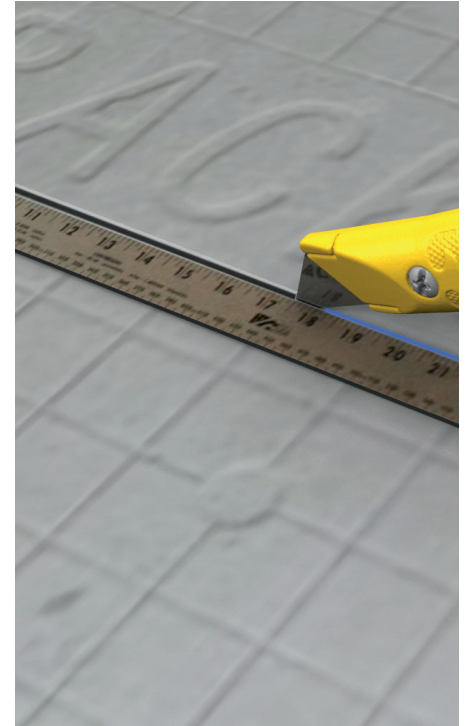
Carbide-Tipped Knife



Snapper Shears

Use

In place of regular drywall, gypsum boards, glass mesh cement boards, and "floated" walls/floors.



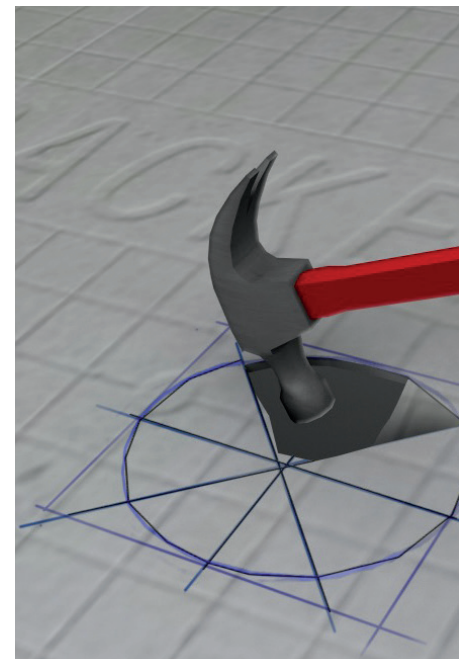
Flange

How to Cut

Score a circle in the size of the opening desired for fitted object. Then, score across the circle as shown (as if you were cutting a pizza). Strike in the center with a hammer and remove the excess pieces with your fingers.

Use

Toilet flange and large openings on the ground. When making a larger circle, flange can also be used for a sink opening on countertops.



Cutting Methods (continued)

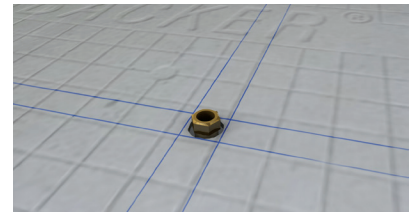
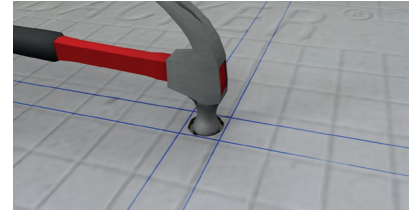
Pipe Perforation

How to Cut

Score a circle in the size of the opening desired for fitted object. Then, score across the circle as shown (as if you were cutting a pizza). Strike in the center with a hammer and remove the excess pieces with your fingers.

Use

To allow pipes or tubing to pass through the board.



Corner

How to Cut

Score a square or rectangle shape at the corner. Then score down the center to create two triangles. Place hammer or hard object under the center line and press down on the edges.

Use

Around pillars and walls.



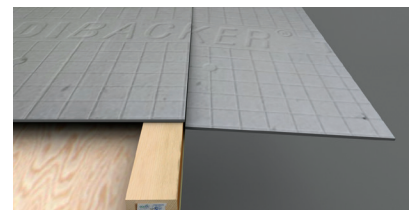
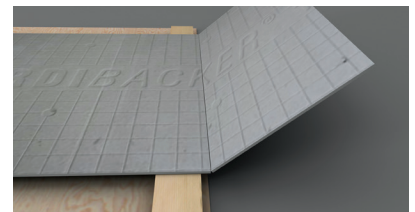
1in. – 4 in. Cut

How to Cut

Use a straight edge as a guide to score the board's face and snap upward along the score line. We recommend using a carbide-tipped scoring knife, but a utility knife may also be used. The use of shears (manual, electric or pneumatic) is also acceptable.

Use

To take small strips off of the board edge and allow for exact fits.



Preparation Checklists



CHECKLIST

ITEMS NEEDED FOR COUNTERTOP INSTALLATION

- ☐ HardieBacker® 1/4 in. Cement Board
- ☐ Latex or acrylic modified thinset (complying with ANSI A118.4)
- ☐ Type 1 mastic (complying with ANSI A118.4)
- ☐ 2in. wide high-strength alkali-resistant glass fiber tape
- ☐ Minimum 3/4in. long corrosion-resistant roofing nails
- ☐ Minimum 3/4in. long ribbed counter sinking corrosion-resistant screws
- ☐ 18-gauge corrosion-resistant polymer coated 3/4in. staples with a 1/4in. crown
- ☐ Scoring knife or utility knife
- ☐ Drill
- ☐ Mortar mixer attachment for drill
- ☐ Hammer (if using nails to fasten)
- ☐ Pencil
- ☐ Level
- ☐ Notched trowel
- ☐ Tape measure
- ☐ Rags
- ☐ Sponges
- ☐ Buckets
- ☐ Safety glasses



CHECKLIST

ITEMS NEEDED FOR WALL INSTALLATION

- ☐ HardieBacker® 500 Cement Board
- ☐ Latex or acrylic modified thinset if finishing with tile (complying with ANSI A118.4)
- ☐ Type 1 mastic (not to be used in exterior applications) (complying with ANSI A118.4)
- ☐ 2in. wide high-strength alkali-resistant glass fiber tape
- ☐ Minimum 1-1/4in. long corrosion-resistant roofing nails
- ☐ Minimum 1-1/4in. long No.8 x 0.375in. HD self-drilling corrosion resistant ribbed waferhead screws
- ☐ Minimum 1-3/4in. long No. 8 x 0.375in. HD self-drilling corrosion resistant ribbed waferhead screws
- ☐ Scoring knife or utility knife
- ☐ Drill
- ☐ Mortar mixer attachment for drill
- ☐ Hammer (if using nails to fasten)
- ☐ Pencil
- ☐ Level
- ☐ Notched trowel
- ☐ Tape measure
- ☐ Rags
- ☐ Sponges
- ☐ Buckets
- ☐ Safety glasses
- ☐ Knee pads



CHECKLIST

ITEMS NEEDED FOR FLOOR INSTALLATION

- ☐ HardieBacker® 500 or 1/4in. Cement Board
- ☐ Latex or acrylic modified thinset if finishing with tile (complying with ANSI A118.4)
- ☐ Dry-set mortar (for use between subfloor and cement board only) (complying with ANSI A118.1)
- ☐ 2in. wide high-strength alkali-resistant glass fiber tape
- ☐ Minimum 1-1/4in. long corrosion-resistant roofing nails
- ☐ Minimum 1-1/4in. long No.8 x 0.375in. HD self drilling corrosion resistant ribbed waferhead screws
- ☐ Scoring knife or utility knife
- ☐ Drill
- ☐ Mortar mixer attachment for drill
- ☐ Hammer (if using nails to fasten)
- ☐ Pencil
- ☐ Level
- ☐ Notched trowel
- ☐ Tape measure
- ☐ Rags
- ☐ Sponges
- ☐ Buckets
- ☐ Safety glasses
- ☐ Knee pads

Preparation Checklists (continued)



MEASURING

Use the chart below for the most accurate estimation of product required for your project.

MEASUREMENTS

How Many 50 lb. Bags of Thinset Do I Need?

(One bag covers about 60 square feet)

These numbers are for estimation purposes only.

| Room Size | 7 FT. | 8 FT. | 9 FT. | 10 FT. | 15 FT. | 20 FT. | 25 FT. |
|-----------|-------|-------|-------|--------|--------|--------|--------|
| 7 FT. | 1 | 1 | 2 | 2 | 2 | 3 | 3 |
| 8 FT. | 1 | 2 | 2 | 2 | 2 | 3 | 4 |
| 9 FT. | 2 | 2 | 2 | 2 | 3 | 3 | 4 |
| 10 FT. | 2 | 2 | 2 | 2 | 3 | 4 | 5 |
| 15 FT. | 2 | 2 | 3 | 3 | 4 | 5 | 7 |
| 20 FT. | 3 | 3 | 3 | 4 | 5 | 7 | 9 |
| 25 FT. | 3 | 4 | 4 | 5 | 7 | 9 | 11 |

DOUBLE THE NUMBER OF BAGS NEEDED IF YOU ARE USING THINSET UNDER THE HARDIEBACKER CEMENT BOARD AS WELL AS ON TOP ON FLOORS AND COUNTERTOPS

How many boards of HardieBacker Cement Boards do I need? (5% waste level included)

| Room Size | 6 FT. | 7 FT. | 8 FT. | 9 FT. | 10 FT. | 11 FT. | 12 FT. |
|-----------|-------|-------|-------|-------|--------|--------|--------|
| 6 FT. | 3 | 3 | 3 | 4 | 4 | 5 | 5 |
| 7 FT. | 3 | 3 | 4 | 4 | 5 | 5 | 6 |
| 8 FT. | 3 | 4 | 4 | 5 | 6 | 6 | 7 |
| 9 FT. | 4 | 4 | 5 | 6 | 6 | 7 | 8 |
| 10 FT. | 4 | 5 | 6 | 6 | 7 | 8 | 8 |
| 15 FT. | 6 | 7 | 8 | 9 | 11 | 12 | 13 |
| 20 FT. | 8 | 10 | 11 | 13 | 14 | 15 | 17 |



MEASURING

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| 7 FT. | 1 | 1 | 2 | 2 | 2 | 3 | 3 |
| 8 FT. | 1 | 2 | 2 | 2 | 2 | 3 | 4 |
| 9 FT. | 2 | 2 | 2 | 2 | 3 | 3 | 4 |
| 10 FT. | 2 | 2 | 2 | 2 | 3 | 4 | 5 |
| 15 FT. | 2 | 2 | 3 | 3 | 4 | 5 | 7 |
| 20 FT. | 3 | 3 | 3 | 4 | 5 | 7 | 9 |
| 25 FT. | 3 | 4 | 4 | 5 | 7 | 9 | 11 |

DOUBLE THE NUMBER OF BAGS NEEDED IF YOU ARE USING THINSET UNDER THE HARDIEBACKER CEMENT BOARD AS WELL AS ON TOP ON FLOORS AND COUNTERTOPS

How many boards of HardieBacker Cement Boards do I need? (5% waste level included)

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|-----------|-------|-------|-------|-------|--------|--------|--------|
| 6 FT. | 3 | 3 | 3 | 4 | 4 | 5 | 5 |
| 7 FT. | 3 | 3 | 4 | 4 | 5 | 5 | 6 |
| 8 FT. | 3 | 4 | 4 | 5 | 6 | 6 | 7 |
| 9 FT. | 4 | 4 | 5 | 6 | 6 | 7 | 8 |
| 10 FT. | 4 | 5 | 6 | 6 | 7 | 8 | 8 |
| 15 FT. | 6 | 7 | 8 | 9 | 11 | 12 | 13 |
| 20 FT. | 8 | 10 | 11 | 13 | 14 | 15 | 17 |



MEASURING

Use the chart below for the most accurate estimation of product required for your project.

MEASUREMENTS

How Many 50 lb. Bags of Thinset Do I Need?

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|-----------|-------|-------|-------|--------|--------|--------|--------|
| 7 FT. | 1 | 1 | 2 | 2 | 2 | 3 | 3 |
| 8 FT. | 1 | 2 | 2 | 2 | 2 | 3 | 4 |
| 9 FT. | 2 | 2 | 2 | 2 | 3 | 3 | 4 |
| 10 FT. | 2 | 2 | 2 | 2 | 3 | 4 | 5 |
| 15 FT. | 2 | 2 | 3 | 3 | 4 | 5 | 7 |
| 20 FT. | 3 | 3 | 3 | 4 | 5 | 7 | 9 |
| 25 FT. | 3 | 4 | 4 | 5 | 7 | 9 | 11 |

DOUBLE THE NUMBER OF BAGS NEEDED IF YOU ARE USING THINSET UNDER THE HARDIEBACKER CEMENT BOARD AS WELL AS ON TOP ON FLOORS AND COUNTERTOPS

How many boards of HardieBacker Cement Boards do I need? (5% waste level included)

| Room Size | 6 FT. | 7 FT. | 8 FT. | 9 FT. | 10 FT. | 11 FT. | 12 FT. |
|-----------|-------|-------|-------|-------|--------|--------|--------|
| 6 FT. | 3 | 3 | 3 | 4 | 4 | 5 | 5 |
| 7 FT. | 3 | 3 | 4 | 4 | 5 | 5 | 6 |
| 8 FT. | 3 | 4 | 4 | 5 | 6 | 6 | 7 |
| 9 FT. | 4 | 4 | 5 | 6 | 6 | 7 | 8 |
| 10 FT. | 4 | 5 | 6 | 6 | 7 | 8 | 8 |
| 15 FT. | 6 | 7 | 8 | 9 | 11 | 12 | 13 |
| 20 FT. | 8 | 10 | 11 | 13 | 14 | 15 | 17 |

Installation: Floor

1 Ensure subfloor is structurally sound

On existing structures:

- Ensure subfloor is not damaged, loose, warped or uneven.
- Replace any damaged sections of subfloor.
- Make certain subfloor is a clean and flat surface.

For all floors:

- Joist spacing should not exceed 24in. on center. **(Figure 1a)**
- Use minimum 5/8in. exterior grade plywood or 23/32 OSB with Exposure 1 classification or better, complying with local building codes and ANSI A108.11. **(Figure 1b)**

The subfloor and joist system underneath the cement board must be engineered not to exceed the L/360 deflection criteria (L/720 for natural stone), including live and dead design loads, for the specific joist spacing used.

2 Determine layout of HardieBacker® Cement Board and cut

Stagger all HardieBacker Cement Board joints. Do not align with subfloor joints.

Never allow all four corners of boards to meet at one point. **(Figure 2a)**

A 1/8in. gap is recommend between board edges. **(Figure 2b)**

Keep sheet edges 1/8in. back from walls and cabinet bases. **(Figure 2b)**

Score and snap boards to required sizes and make necessary cutouts.

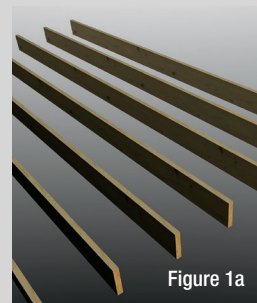


Figure 1a



Figure 1b

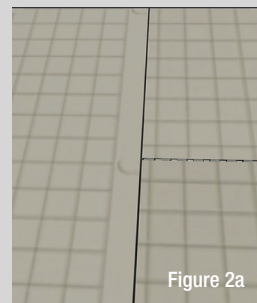


Figure 2a

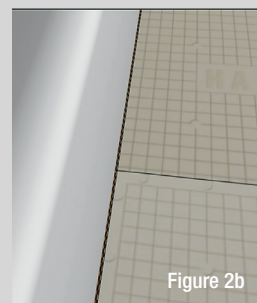


Figure 2b

Remember:

Check existing structure for any damage or instability prior to the install.

Recommended:

HardieBacker 1/4 in. Cement Board
(unless 1/2in. thickness is needed for transition)

Installation: Floor (continued)

3 Attach HardieBacker Cement Board to subfloor

Apply a supporting bed of latex or acrylic modified thinset setting material complying with ANSI A118.4 to subfloor using a 1/4in. square-notched trowel.

The subfloor must be covered with a minimum 3/32in. thick layer of mortar. **(Figure 3a)**

Embed HardieBacker Cement Board firmly and evenly in the wet thinset. **(Figure 3b)**

Use the fastener pattern as a guide. Fasten HardieBacker Cement Board with the specified nails or screws (as listed in the “Materials Checklist” and ICC-ES ESR-2290). For tile finish, the fasteners must be installed at 8in. on center over the entire surface, including the perimeter. Keep fasteners between 3/8in. and 3/4in. from the cement board edges and 2in. from cement board corners. **(Figure 3c)**

Set fastener heads flush with the surface without overdriving.

4 Prep for flooring **(Figure 4)**

Prior to setting the tile, fill all joints with the same thinset mortar planned to set the tiles.

Embed 2in. wide high-strength alkali-resistant glass fiber tape in the mortar and level.

Wipe HardieBacker boards with wet sponge

Layer on modified thinset complying with ANSI A118.4. The depth of the notch in the notched trowel (the depth of the thinset) will depend on the tile dimension (consult your tile or thinset supplier for more information). Back buttering the tile may be necessary when the tile being applied is not completely flat.

5 Apply tile, grout, and seal (see “Finishing” section)

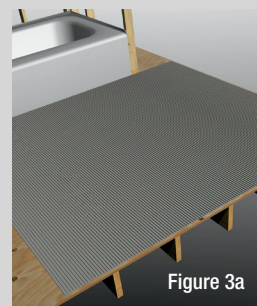


Figure 3a

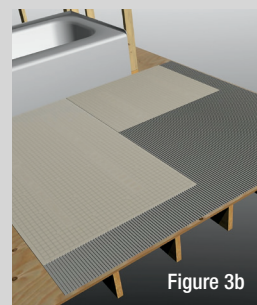


Figure 3b

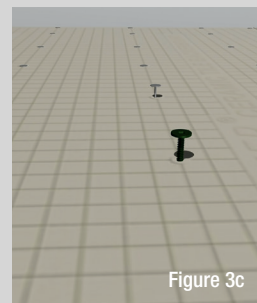


Figure 3c

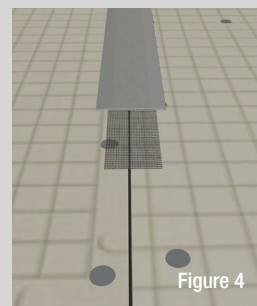


Figure 4

Installation: Wall

1 Ensure framing is structurally sound (Figure 1)

Must comply with local building codes and ANSI A108.11.

Use a minimum of 2in. x 4in. wood studs or 20-gauge metal studs (minimum 0.0329in. bare metal thickness), which must be straight, properly aligned and spaced a maximum of 16in. on center.

In tub and shower enclosures, ensure that the framing is adequately reinforced at the corners.

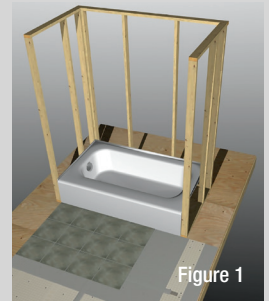


Figure 1

2 Determine layout of HardieBacker Cement Board and cut (Figure 2)

Boards may be installed vertically or horizontally.

Edges of the board parallel to framing must be supported by a structural framing member.

Score and snap boards to required sizes and make necessary cutouts.

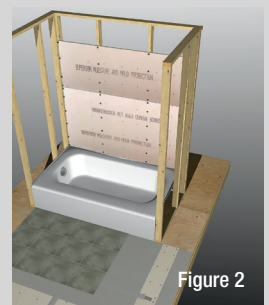


Figure 2

3 Attach HardieBacker Cement Board to framing

See applicable building codes regarding vapor barrier requirements.

Install boards 1/4in. above floor, tub or shower pan and caulk accordingly. (Figure 3a)

Fasten cement board with specified nails or screws (as listed in “Materials Checklist”) a maximum of 8in. on center at all supports. (Figure 3b)

Keep fasteners 3/8in. from board edges and 2in. in from sheet corners.

Set fastener heads flush with the surface, without overdriving.

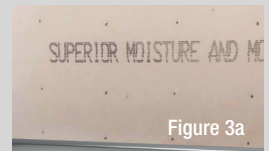


Figure 3a

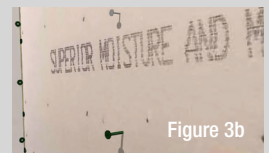


Figure 3b

4 Tape joints prior to tiling (Figure 4)

Fill all joints with thinset mortar (as listed in “Materials Checklist”).

Embed 2in. wide high-strength alkali-resistant glass fiber tape in the mortar and level.

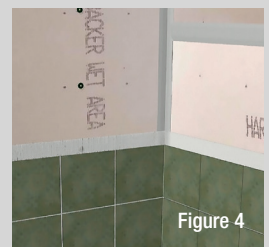


Figure 4

5 Apply tile, grout, and seal (see “Finishing” section) (Figure 4)

Remember:

See applicable building codes regarding vapor barrier requirements.

Recommended:

HardieBacker 500 Cement Board

Installation: Countertop

1 Ensure cabinets are level and secure (Figure 1)

Use minimum 1/2in. exterior grade plywood or equivalent, positioned across the wood cabinet. Space between plywood supports is not to exceed 16in. on center.

2 Determine layout of HardieBacker Cement Board

Do not align HardieBacker Cement Board with plywood joints.

Score and snap boards to required sizes and make necessary cutouts.

We recommend an 1/8in. gap from board edges. (Figure 2)

3 Attach HardieBacker Cement Board to countertop

Apply a supporting bed of dry-set mortar (complying with ANSI A118.1) or modified thinset (complying with ANSI A118.1) to plywood with a 1/4in. square-notched trowel. Mastic (complying with ANSI A118.1) can also be used with a 5/32in. V-notched trowel. (Figure 3a)

Use the fastener pattern as a guide. Fasten HardieBacker Cement Board with specified nails or screws (as listed in “Materials Checklist”) every 8in. over the entire surface. Keep fasteners between 3/8in. and 3/4in. from board edges and 2in. from board corners. (Figure 3b)

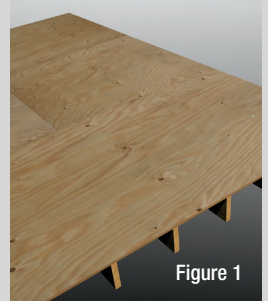


Figure 1

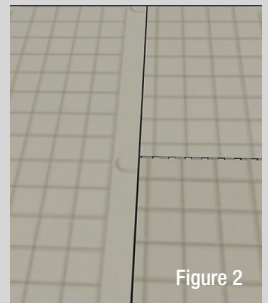


Figure 2

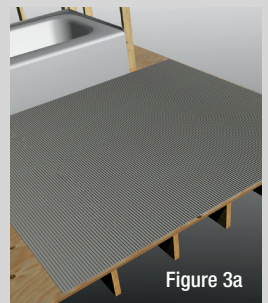


Figure 3a

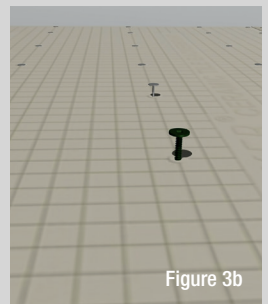


Figure 3b

Remember:

HardieBacker Cement Board can be used with any type of tile

Recommended:

HardieBacker 1/4 in. Cement Board

4 Tape joints prior to tiling (Figure 4)

Prior to setting the tile, fill all joints with the same mortar used to set the tiles.

Embed 2in. wide high-strength alkali-resistant glass fiber tape in the mortar and level.

5 Apply tile, grout, and seal (see “Finishing” section) (Figure 5)

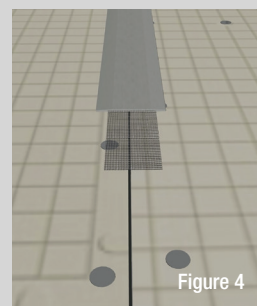


Figure 4

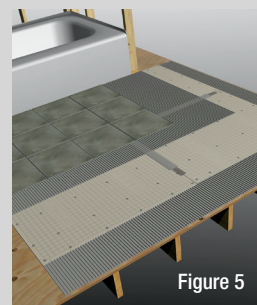


Figure 5



Finishing



Tile

1. Refer to ANSI A108 and the mortar and tile manufacturers' published application guidelines for complete tiling instructions.
2. Wipe the surface of HardieBacker Cement Board clean with a damp sponge just prior to adding mastic or mortar.
3. Spread the mastic or mortar with a notched trowel (Note: Please see "Materials Checklist" to see which setting material is required for your application.)
4. Twist or press and beat in tiles (tiles shall comply with ANSI A137.1).
5. Allow a minimum of 24 hours curing set time before grouting.



Natural Stone

Remember: The strength of your natural stone will have an impact on the ultimate performance of your flooring systems. Natural stone often has hidden weaknesses which can result in surface cracks in finished floors. To reduce the risk of job failures, always consult The Marble Institute of America Handbook.

In addition to the steps outlined under "Floor Installation", the following is required:

- Always follow the recommendations of the flooring material manufacturer.
- Marble and natural stones must have sufficient flexural strength for use in flooring systems.* Where the quality and strength of the stone is unknown, the floor must be engineered not to exceed the L/720 deflection criteria, including live and dead design loads, for the specific joist spacing used. The strength of your natural stone will have an impact on the ultimate performance of your flooring system.

** Testing has shown that a minimum 2900 psi is preferable for flooring application.*



Paint (Interior applications only)

1. Refer to the paint manufacturers' published application guidelines for preferable drywall primer suitable for high-moisture areas.
2. Apply drywall primer.
3. Paint HardieBacker board as you would drywall.



Wallpaper

1. Refer to the wallpaper manufacturers' published application guidelines for preferable primer suitable for high-moisture areas.
2. Prime the surface of the HardieBacker board with a primer.
3. Apply wallpaper according to the manufacturer's instructions.



Texture

1. Texture can be applied to HardieBacker board in the same way as drywall.
2. Make sure the texture used is formulated and designed for use in high moisture areas. Always follow the manufacturers directions and recommendations.



Warranty

HardieBacker® Cement Board Limited Lifetime Product Warranty

1. LIMITED WARRANTY: James Hardie Building Products, Inc. ("Hardie") warrants, (for installation within the U.S., Puerto Rico and Canada) to the purchaser, the first owner of the structure to which the product is applied, and the first transferee of such structure (each a "Covered Person") that HARDIEBACKER™ Cement Board with MoldBlock™ Technology (hereinafter "Product") is free from defects in materials and workmanship during the life of the Product subject to the terms and conditions of this Limited Warranty.

2. WHAT WE WILL DO: If during the warranty period any Product proves to be defective, Hardie, in its sole discretion, shall replace or refund the original purchase price of the defective Product. If the original retail cost cannot be established by the Covered Person, the cost shall be determined by Hardie in its sole and reasonable discretion. Hardie's replacement of the defective Product pursuant to Section 2 of this Limited Warranty SHALL BE THE SOLE EXCLUSIVE REMEDY available to a Covered Person with respect to any defect. Hardie will pay for or reimburse labor costs.

3. WHAT YOU MUST DO/CONDITIONS OF LIMITED WARRANTY:

Warranty coverage under this Limited Warranty shall be subject to the following terms and conditions.

- A. Covered Person must provide written notice to Hardie within thirty (30) days after discovery of any claimed defect covered by this Limited Warranty and before beginning any permanent repair. The notice must describe the location and details of the claimed defect and any additional information necessary for Hardie to investigate the claim. Photos of the Product, showing the claimed defect must accompany the notice. A claimant under this Limited Warranty must provide proof to Hardie that such claimant is a Covered Person as defined in Section 1 above.
- B. The Product must be installed according to Hardie's printed installation instructions and all building codes adopted by federal, state or local governments or government agencies and applicable to the installation.
- C. Upon discovery of a claimed defect, a Covered Person must immediately, and at a Covered Person's own expense, provide for protection of all property that could be affected until the claimed defect is remedied if applicable. Before any permanent repair to the Product, a Covered Person must allow Hardie or Hardie's authorized agent to enter the property and structure where the Product is installed, if applicable, and examine, photograph and take samples of the Product. Any repairs initiated by or on behalf of a Covered person without prior authorization from Hardie may void the warranty.

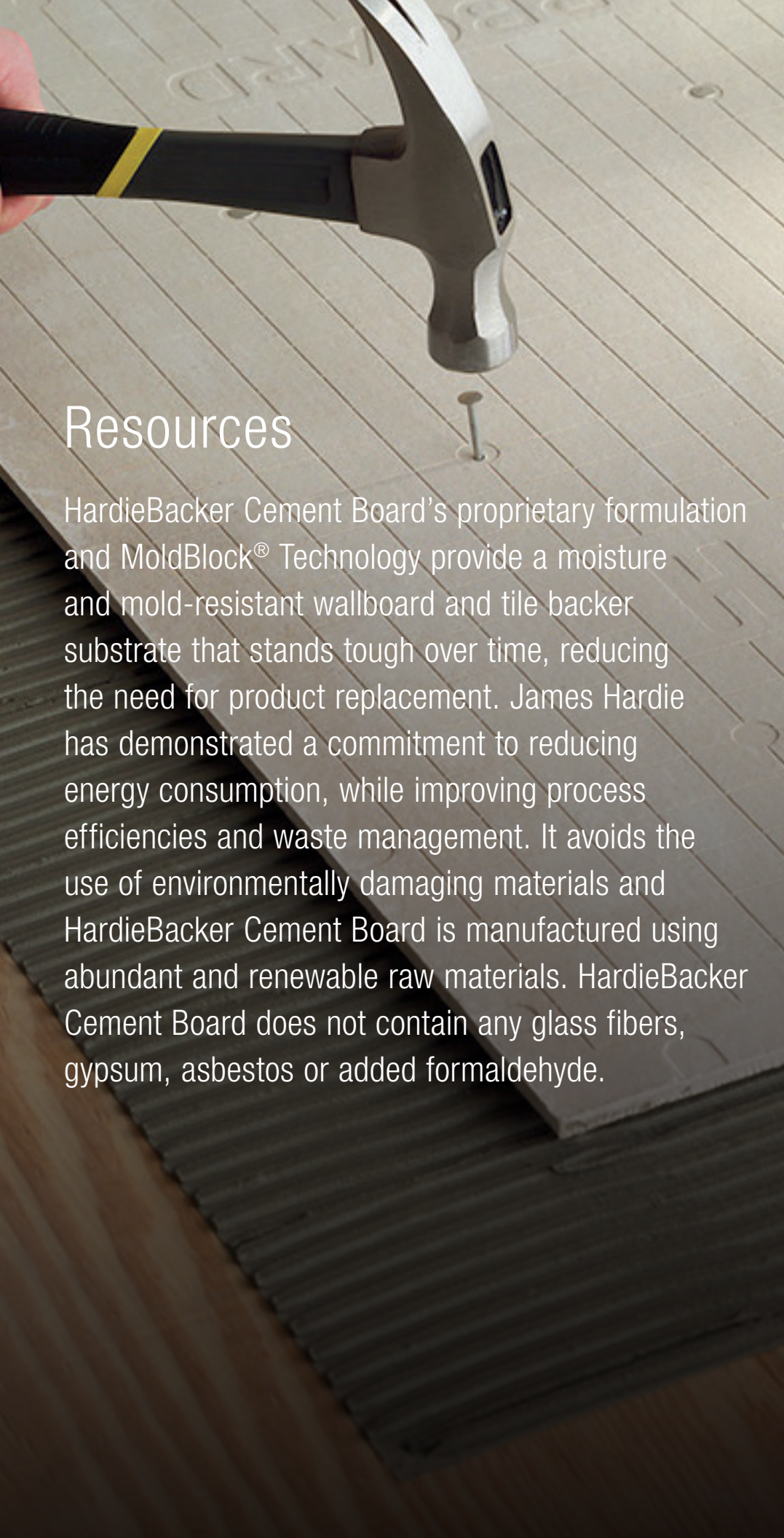
4. WHAT IS NOT COVERED: This Limited Warranty does not cover damage or defects resulting from or in any way attributable to:

- A. The improper storage, shipping, handling or installation of the Product (including, without limitation, failure of the Product to be installed in strict compliance with the Conditions of Limited Warranty set forth in Section 3.B of this Limited Warranty) and/or improper installation of studs or other accessories;
 - B. Further processing, modification or alteration of the Product after shipping from Hardie;
 - C. Neglect, abuse, or misuse;
 - D. Repair or alteration;
 - E. Settlement or structural movement and/or movement of materials to which the Product is attached;
 - F. Damage from incorrect design of the structure;
 - G. Exceeding the maximum floor deflection;
 - H. Exceeding the maximum designed wind loads;
 - I. Acts of God including, but not limited to, tornados, hurricanes, floods, earthquakes, severe weather or other natural phenomena, (including, but not limited to, unusual climate conditions);
 - J. Efflorescence or performance of any paints and/or coatings which are not Hardie and/or Hardie affiliated applied;
 - K. Cracked or broken tiles;
 - L. Lack of proper maintenance; or
 - M. Any cause other than material or manufacturing defects attributable to Hardie
-

5. LIMITATION OF LIABILITY: IN NO EVENT SHALL HARDIE BE LIABLE FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES, INCLUDING BUT NOT LIMITED TO, ANY CLAIMS OF PROPERTY DAMAGE, BASED UPON BREACH OF WARRANTY, BREACH OF CONTRACT, TORT, OR ANY OTHER LEGAL THEORY. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation may not apply to you.

6. ENTIRE AGREEMENT: This Limited Warranty contains and represents the only warranty extended by Hardie for the Product. No employee or agent of Hardie or any other party is authorized to make any other warranty in addition to those made in this Limited Warranty. This Limited Warranty gives you specific legal rights and you may also have other rights which vary from state to state.

7. HOW TO OBTAIN WARRANTY SERVICE: For warranty services call 1.866.375.8603 or write Warranty Department, James Hardie Building Products, Inc., 10901 Elm Avenue, Fontana, California 92337.



Resources

HardieBacker Cement Board's proprietary formulation and MoldBlock® Technology provide a moisture and mold-resistant wallboard and tile backer substrate that stands tough over time, reducing the need for product replacement. James Hardie has demonstrated a commitment to reducing energy consumption, while improving process efficiencies and waste management. It avoids the use of environmentally damaging materials and HardieBacker Cement Board is manufactured using abundant and renewable raw materials. HardieBacker Cement Board does not contain any glass fibers, gypsum, asbestos or added formaldehyde.

HardieBacker® CERTIFICATIONS





HardieBacker®

CEMENT BOARD



Workable



Durable



Strong



Trusted

For more information go to HardieBacker.com

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For the mobile install guide or to have it e-mailed to you, snap this code. Or text "BACKER" to 76477

