

USG DUROCK® BRAND CEMENT BOARD INSTALLATION GUIDE



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For more than 30 years, USG Durock® Brand cement board has set the standard for proven performance in the backerboard category. USG Durock® Cement Board installs quickly and easily, while maintaining the brand's tradition of quality of reliability.

Other benefits include:

- Lightweight cement board for easier handling
- Easy to cut and fasten
- 30-year, limited warranty

Water durable and mold resistant, with better tile bond than fiber-cement boards or bare plywood, USG Durock® cement board is an outstanding backerboard for a wide variety of materials. Choose this high-performance alternative to fibercement boards or bare plywood surfaces for:

SUPERIOR TILE BOND

Prevents tile pops and grout cracks, up to 40% greater tile bond than fiber-cement board.

THE STRENGTH OF PORTLAND CEMENT

Will not swell, soften, rot, warp, delaminate or disintegrate if exposed to water. Noncombustible. Backed by a 30-year limited warranty.

SUPERIOR MOLD RESISTANCE

Receives rating of "0" for no mold growth as tested per ASTM G21. Scores a 10 out of 10 on ASTM D3273.

REQUIREMENTS

FLOORS 1/4", 1/2", 5/8" THICKNESS

 Subfloor should be minimum 5/8" APA span-rated plywood or OSB with an Exposure 1 classification or better.

COUNTERTOPS 1/4", 1/2", 5/8" THICKNESS

- Minimum 3/4" APA span-rated plywood with an Exposure 1 or better classification.
- Cover base with USG Durock™ Brand Tile Membrane, 15 lb. felt or 4-mil polyethylene and attach with 1/4" galvanized staples.

WALLS AND CEILINGS 1/2" AND 5/8" THICKNESS ONLY

 Maximum stud spacing: 16"
 o.c. Maximum allowable deflection, based on stud properties only, L/360.
 Maximum fastener spacing: 8" o.c. for wood and steel framing; 6" o.c. for ceiling applications.

WATERPROOFING

 If waterproofing is desired, use USG Durock™ Tile Membrane or USG Durock™ Brand Waterproofing Membrane.
 See USG literature piece CB492 for USG Durock™ tile membrane product information.
 See USG literature piece CB595 for USG Durock™ Waterproofing Membrane product information.

WHAT YOU'LL NEED

CUTTING

USG Durock® Brand Cement Board panels should be cut to size with a knife and straight edge. A power saw should be used only if it is equipped with a dust collection device. Always wear a NIOSH/ MSHA-approved mask and eye protection when cutting USG Durock™ panels.

 Utility knife: Using a straight edge, score panel face with utility knife and cut through glass-fiber reinforcing mesh, then snap and cut backside mesh to break cleanly. Use a rasp to smooth any



- Power saw: Use a low-RPM portable saw with 3-1/2" carbide-tipped blade. To make cutouts for pipes and fixtures, use utility knife to cut through mesh on both sides of panel and punch out with a hammer from back side. Or, use an electric drill with a hole-saw bit.



WARNING: Dust can contain silica. Prolonged breathing can cause lung damage and cancer. See SDS for more information.

FLOOR INSTALLATION

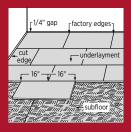
1/4", 1/2", 5/8"

POSITIONING

Fit ends and edges of panels closely but not forced together, maintaining 1/4" space between panels and perimeter walls.

Stagger joints a minimum 16" so four corners never meet.

Offset panel joints a minimum 8" from subfloor joints.



LEVELING BED

Apply Type 1 organic adhesive with 5/32" v-notched trowel, latex-fortified mortar with 1/4" square-notched trowel. Comb out adhesive or mortar in straight, parallel rows (as shown below) and immediately cover with panel. Adhere panels to subfloor, one panel at a time.



FASTENING

Secure panels while adhesive is still wet. Space fasteners 8" o.c. around the perimeter and in the field of the board.

Wood framing and countertops: fasten with 1-1/2" 11-gauge hotdipped galvanized roofing nails, or USG Durock™ Brand Tile Backer Screws for wood framing or 1-1/4" USG Durock™ Tile Backer Screws for wood framing or equivalent.

JOINING

Fill joints with latex-fortified mortar or Type 1 organic adhesive and immediately embed alkali-resistant, fiberglass mesh joint tape.



FINISHING

Tile or almost any flooring material.*

* Not for use with vinyl flooring.

COUNTERTOP INSTALLATION

1/4", 1/2", 5/8"

Cover plywood base with USG Durock™ tile membrane, 15 lb. felt or 4 mil polyethylene and attach with 1/4" galvanized staple.



POSITION

Fit ends and edges of panels closely but not forced together. Stagger panel joints from plywood base joints.

FASTEN

Space fasteners 8" o.c. around the perimeter and in the field of the board.

JOINING

Fill joints with latex-fortified mortar or Type 1 organic adhesive and immediately embed alkali-resistant, fiberglass mesh joint tape.



FINISH Install tile.

Note:

Because cement board fasteners may protrude through the plywood base when 1/4" cement board is used 1/2" or 5/8" cement board is preferred in this application.

WALL & CEILING INSTALLATION

1/2" & 5/8" ONLY

FASTENING

Fasten to studs spaced 16" o.c. Space fasteners 8" o.c. for walls, 6" o.c. for ceilings. Fit ends and edges of panels closely but not forced together.

- Wood framing: 1-1/2" hot-dipped galvanized roofing nails or 1-1/4" USG Durock™ tile backer screws for wood framing or equivalent.
- Steel framing: 1-1/4" USG Durock™ tile backer screws for steel framing or equivalent.



JOINING

Fill joints with latex-fortified mortar or Type 1 organic adhesive and immediately embed alkali-resistant, fiberglass mesh joint tape.

SHIM

Place a 1/4" spacer strip or shim around lip of bathtub or shower pan to hold bottom edge of panel off the fixture.

FINISH

Install tile.

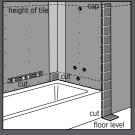
See SA932 for finishing recommendations to non-tiled cement board.

PLANNING YOUR TILE INSTALLATION

1/4", 1/2", 5/8"

POSITIONING

Where tile will not cover entire wall surface, such as above tub and shower surrounds, determine where you want the tile to end and draw a level line at this height. Be sure to allow for height of tile cap, if applicable.

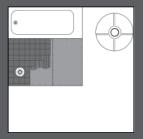


On walls where tile will reach the floor, determine whether floor is level by measuring distance to desired tile height on both sides of area to be tiled. If there is a difference (e.g., the floor is lower on one side), lay one vertical row of tile from highest point down to floor. Affix tiles with dabs of mastic.

Use this first row as a guide to keep tiles and grout lines level and ensure alignment with tiles of adjacent tub or shower surround. If new flooring will be installed, leave a sufficient gap between lowest tile and subfloor.

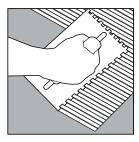


On bathroom floors, start by placing full tiles in front of bathtub or shower and along the adjoining wall to avoid cut tiles in this highly visible area.

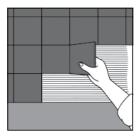


INSTALLING CERAMIC TILE

Apply latex-fortified mortar or Type 1 organic adhesive with a notched trowel. Hold trowel at an angle to maintain uniform thickness. Refer to setting material manufacturer for specific information related to trowel type and size.



Working a small area at a time, press tile into place with a slight twisting motion to seat properly. Prevent adhesive buildup on tile edge and in grout space. If adhesive squeezes from under tile, remove excess before it dries.



Keep tiles and joints straight and uniform. Use tile spacers if desired.

TRADEMARKS

THE TRADEMARKS USG, DUROCK, IT'S YOUR WORLD. BUILD IT., THE USG LOGO, THE DESIGN ELEMENTS AND COLORS, AND RELATED MARKS ARE TRADEMARKS OF USG CORPORATION OR ITS AFFILIATES.

NOTE

Products described here may not be available in all geographic markets.

Consult your USG Company sales office or representative for information.

NOTICE

We shall not be liable for incidental and consequential damages, directly or indirectly sustained, nor for any loss caused by application of these goods not in accordance with current printed instructions or for other than the intended use. Our liability is expressly limited to replacement of defective goods. Any claim shall be deemed waived unless made in writing to us within thirty (30) days from date it was or reasonably should have been discovered.

SAFETY FIRST!

DANGER: May cause cancer or damage lungs by prolonged or repeated exposure to respirable crystalline silica. Do not handle until all safety precautions have been read and understood. Do not breathe dust. Use only in a well-ventilated area, wear a NIOSH/MSHA-approved respirator. Wear protective gloves/protective clothing/eye protection. If swallowed, inhaled, or skin irritation occurs immediately get medical attention. Dispose of in accordance with local, state, and federal regulations. For more information call Product Safety: 800-507-8899 or see the SDS at usg.com. KEEP OUT OF REACH OF CHILDREN.

WARNING!

Dust can contain silica. Prolonged and repeated breathing of silica dust can cause lung damage and cancer. If cutting with a power tool, use a wet or vacuum saw to reduce the amount of dust generated. Dust can be corrosive to eyes, skin and respiratory tract. Contact can cause severe chemical burns. Wear eye, skin and respiratory protection. If eye contact occurs, flush immediately with water for 30 minutes. If ingested, call physician. Product safety information: 800-507-8899 or usg.com Customer Service: 800 USG.4YOU (874-4968)

FOR WARRANTY OR PRODUCT INFORMATION AND LITERATURE:

800 USG.4YOU (874-4968)

usg.com

