

USG
Tile &
Flooring
Solutions



USG DUROCK™ BRAND TILE MEMBRANE INSTALLATION GUIDE

USG Durock™ Brand Tile Membrane
USG Durock™ Brand Tile Membrane Adhesive

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IT'S YOUR WORLD. BUILD IT.™

USG DUROCK™ BRAND TILE MEMBRANE

An easy-to-install tile backer on a roll with superior tile bond.

USG Durock™ Brand Tile Membrane is a thin, waterproof, vapor-permeable membrane used under tile in residential and light-commercial floor, wall and countertop applications. Easy to install, with outstanding tile bond, this membrane provides a high-performance crack-isolation solution when used with USG Durock™ Brand Tile Membrane Adhesive.



START WITH QUALITY PRODUCTS

USG DUROCK™ TILE MEMBRANE

Ideal for floor, wall and countertop applications.

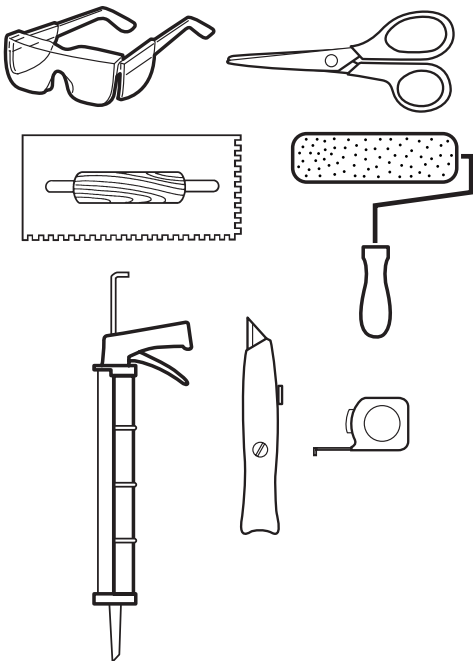
USG DUROCK™ TILE MEMBRANE ADHESIVE

A superior adhesive with proprietary acrylic polymer and an additive for mold and mildew resistance. Used with USG Durock™ tile membrane to provide crack isolation.

USG Durock™ tile membrane may also be installed with the following products, which do not provide crack isolation: Type 1 organic adhesive and latex modified thin-set mortar.

TOOLS

In general, common tools like scissors, a straightedge, and a notched trowel or 3/8"-nap paint roller (for applying USG Durock™ tile membrane adhesive) are used for tile membrane installation. Other tools you may need for installation include: tape measure, utility knife, caulk and caulking gun.



PREPARATION

1. Ensure that substrate is clean, even, flat, designed to support ceramic tile, and properly installed according to manufacturers' specifications.

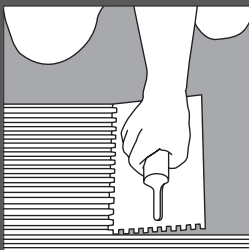


2. Substrate must be free of sealers, waxes, bond breakers, dust and dirt.
3. If USG Durock™ tile membrane is installed directly over a wood-based subfloor, ensure that all fasteners are seated correctly and there are no uneven joints. Sand or fill if necessary.

INSTALLATION OF TILE MEMBRANE

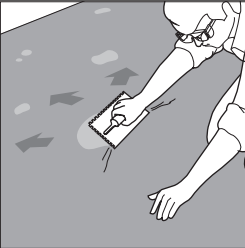
1. Precut the full width of membrane to provide a tight fit to the perimeter of the room.
2. Spread adhesive over an area the full width of the sheet and as far as can be comfortably reached.
 - For USG Durock™ tile membrane adhesive, use a 3/8"-nap paint roller or a 1/16" U-notch trowel.
 - For Type 1 organic adhesive, use a 1/16" U-notch trowel.
 - For latex-modified thin-set mortar, use a 1/8" U-notch trowel. Roll or trowel adhesive in parallel rows across the width or length to avoid trapping air under the membrane.

For installations over nonporous surfaces—such as vinyl, laminate and existing tile—allow adhesive to air-dry, becoming translucent and developing tack, before installing USG Durock™ tile membrane. Time will vary depending on temperature, humidity and substrate type. However, a minimum of 15 minutes should be allowed.

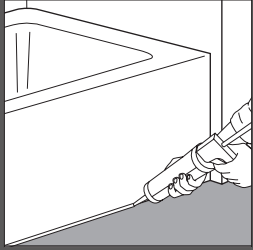


3. Install membrane with cementitious side out. Embed into adhesive, using the flat edge of the trowel or with a nonsegmented hand roller. Start in the center of the sheet and work out toward the edges, removing all air bubbles. Overlap each row 2", making sure that a sufficient amount of adhesive is applied to the joint area.

For wall applications, begin from the lowest point and work toward the highest point of coverage so all horizontal membrane seams are lapped in a shingle-like manner.



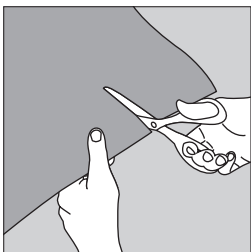
4. Areas unable to receive vertical flashing, such as pipe penetrations and bathroom tubs, should be sealed using a good quality silicone sealant. Run a continuous bead and tool the material to provide continuity to the membrane.



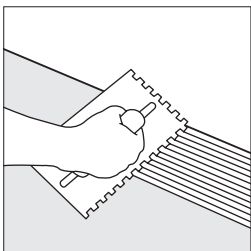
5. Allow membrane adhesive to cure sufficiently (minimum two hours for USG Durock™ tile membrane adhesive, minimum four hours for Type 1 organic adhesive or eight hours for latex-modified thin-set mortar).
6. Install tiles on cementitious (dark) side of membrane with ANSI A118.4 latex-modified Portland cement mortar or ANSI A136.1 Type 1 organic adhesive. Determine correct trowel size based on tile material and size to achieve at least 95% coverage of the average tile contact area.
7. After tile installation, do not walk on floor for at least 48 hours unless walking boards or plywood sheets are used, as per current *Tile Council of North America Handbook 2014 for Ceramic Tile Installation*.
8. Select, prepare and install ANSI A118.7 latex-modified or ANSI A118.8 modified epoxy emulsion grout per grout manufacturer recommendations.

INSTALLATION OF FLASHING

1. If flashing is required:
Cut 3"-4" strip from end of USG Durock™ tile membrane roll. Precrease the material in half lengthwise, with half to be adhered to the floor and half to the vertical surface. Install all corner pieces first, then fill in between corners around the perimeter as necessary.

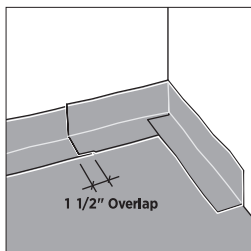


2. Apply USG Durock™ tile membrane adhesive with a 3/8"-nap paint roller or a 1/16" U-notch trowel; apply Type 1 organic adhesive or latex-modified thin-set mortar with a 1/16" U-notch trowel.

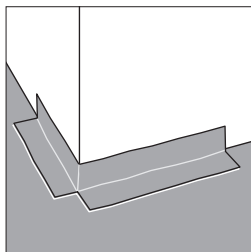


3. Install membrane with the cementitious side out. For outside corners, make a relief cut and press into adhesive.

Use the trowel's smooth edge to fully embed the material.



4. For inside corners, provide a relief cut, but place adhesive where the membrane folds over itself to ensure a water-durable connection. Overlap butt joints by 1-1/2" and use the mastic to ensure a water-durable connection. Apply adhesive to the vertical and horizontal legs of the butt joint. Work the material carefully into position and smooth out, using the flat edge of the trowel.



5. Allow membrane to cure adequately before setting tile.

TECHNICAL DATA

Property	ANSI/ASTM Test	USG Durock™ Tile Membrane
Fungus and microorganism resistance	ANSI A118.10	no mold growth
Seam strength	ANSI A118.10/ ASTM D751	> 8 lbs./inch width
Breaking strength	ANSI A118.10/ ASTM D751	>170 psi
Dimensional stability	ANSI A118.10/ ASTM D1204	< 0.7%
Shear strength to ceramic tile and cement mortar	ANSI A118.10/ ASTM C482	> 50 psi
Waterproofness	ASTM C473 (section 21)**	no visible water penetration to the back surface
Permeance	ASTM E96 (Procedure A)	9.90 perms
System performance	ANSI A118.10/ ASTM C627	residential, light-commercial
Point load	ANSI A118.12	>1,000 lbs.
System crack resistance	ANSI A118.12	no failure up to 1/8" crack opening

** Not intended for continuous water submersion as related to ASTM 118.10.



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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:**
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