

USG
Tile &
Flooring
Solutions



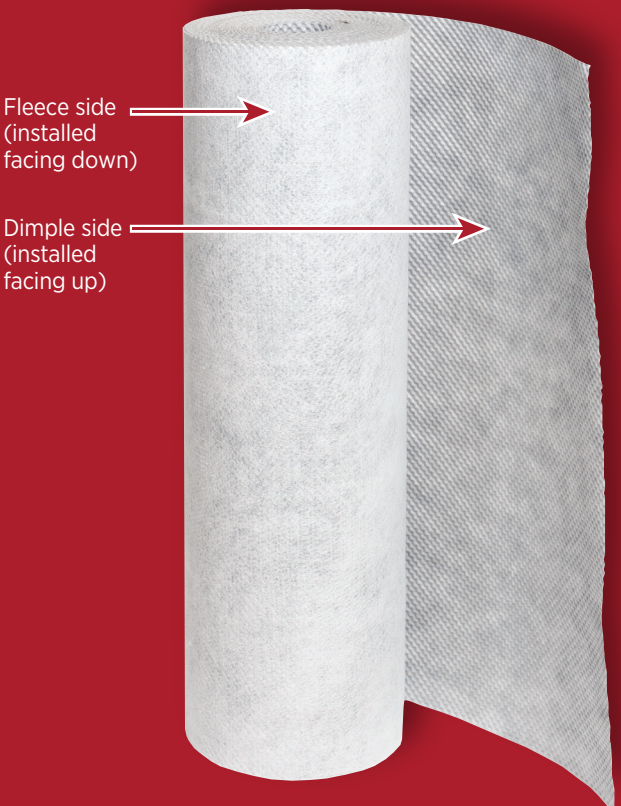
USG DUROCK™ BRAND UNCOUPLING MAT

Installation Guide

USG DUROCK™ BRAND UNCOUPLING MAT

A waterproof underlayment membrane that helps suppress the transfer of lateral movement in a subfloor, preventing cracks in tile.

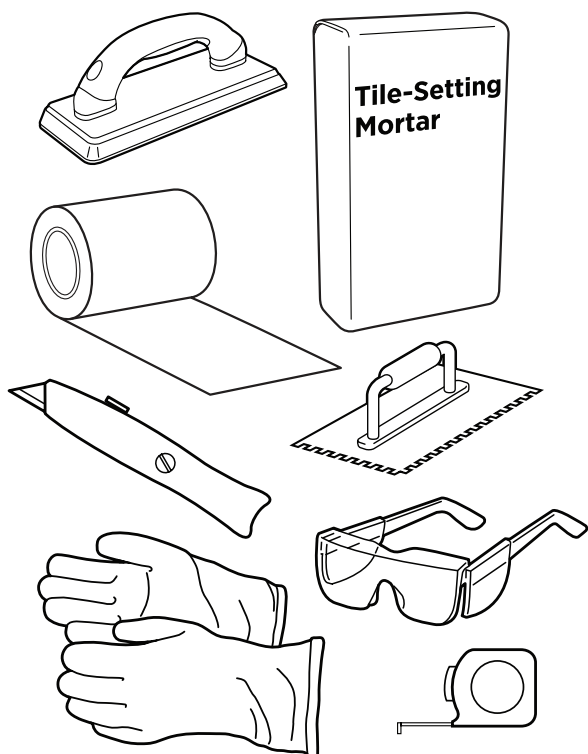
The USG Durock™ Brand Uncoupling Mat is a lightweight, high-performance crack isolation, waterproofing and vapor management underlayment membrane for both residential and commercial applications. When exposed to stresses from in-plane movement of the substrate, the USG Durock™ Uncoupling Mat absorbs and prevents the transfer of those stresses (up to 1/8"), preserving the integrity of the tile installation.



WHAT YOU'LL NEED

- Tile-setting mortar meeting ANSI A118.1, A118.4, A118.11 or A118.15
- 1/4 in. x 1/4 in. (6 mm x 6 mm) square-notched trowel
- 1/4 in. x 3/16 in. (6 mm x 5 mm) V-notched trowel
- Wood or rubber float
- Hand or steel roller
- Utility knife
- Safety glasses
- Gloves
- Straightedge or tape measure
- USG Durock™ Brand Waterproofing Membrane Band (or equivalent)*

* Required in waterproof applications



SAFETY FIRST!

Follow good safety/industrial hygiene practices during installation. Wear appropriate personal protective equipment. Read SDS and literature before specification and installation.

SURFACE PREPARATION

1. All suitable substrates should be structurally sound, stable, dry, clean and free of any contaminants that may reduce or prevent proper bonding.



2. Substrate and ambient temperature must be between 40°F - 95°F during and after installation, until the mortar is set.

CONCRETE/GREEN CONCRETE

1. If installing over concrete, mechanically clean and prepare concrete substrate by grinding or shot blasting to obtain the minimum International Concrete Repair Institute (ICRI) concrete surface profile (CSP) of 1.

When concrete requires more mechanical preparation than CSP 1 to remove contaminants in the concrete, the final surface must be smoothed by applying either a USG self-leveling underlayment or patch/skim coat.

USG Durock™ Brand LSP™ Liquid Surface Profiler can be used to achieve required CSP and remove contaminants in concrete instead of mechanical methods.

2. The surface should be free of voids, sharp protrusions, loose aggregate, cement laitance, concrete sealers and curing compounds.

3. As per Tile Council of North America (TCNA) F128, concrete must be cured sufficiently to support tile installation traffic as determined by the project design professional, construction manager, or general contractor.

4. Slabs subject to excessive moisture, vapor transmission and/or alkalinity should have all seams sealed or treated using USG Durock™ Brand Waterproofing Membrane or equivalent.

All exterior applications must be appropriately sloped to drains.

UNCOUPLING MAT INSTALLATION

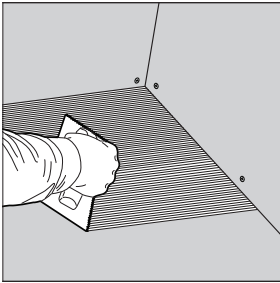
1. Inspect the subfloor before installing USG Durock™ Uncoupling Mat to confirm the substrate is acceptable and prepped for tile or stone installation.

Honor construction joints and fill all substrate cracks, cold joints, control joints with suitable materials.

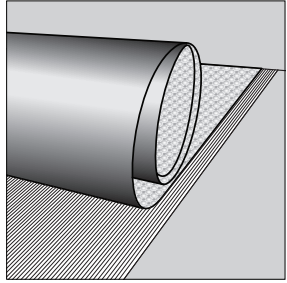
2. Cut uncoupling mat to the appropriate size and dry-fit in place.

3. Mix mortar for the substrate to a consistency on the high end of the recommended water range. The mortar should be able to wet out the fleece backing of USG Durock™ Uncoupling Mat and still be able to hold a notched ridge.

4. With pressure, apply mortar by using the trowel's flat side to key mortar into the substrate.



5. Apply additional mortar, combing it in a single direction using a 1/4 in. x 1/4 in. square-notched trowel.



6. Spread only as much mortar that can be covered with the uncoupling mat before the mortar skins over.

7. Embed USG Durock™ Uncoupling Mat into the mortar with the dimpled side facing up using a wood or rubber float, hand or steel roller (max. 75-lbs.), applying consistent pressure to ensure proper embedding of the mat into the mortar.

8. Lift the mat occasionally to verify proper coverage. Correct installation results in full contact between the fleece backing and the mortar.

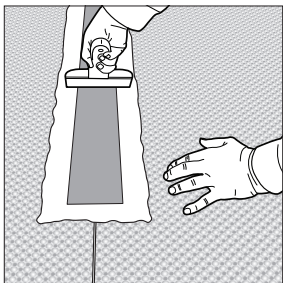
9. Ensure that all edges or ends of each roll butt the edges or ends of other rolls without leaving gaps. Leaving a 1/4 in. gap between the uncoupling mat and the edge of the walls, columns, etc. for movement.

Note: To ensure a flat surface, do not overlap edges or ends from one cut onto another.

FOR WATERPROOF APPLICATIONS

1. Using the flat side of a trowel, key in the mortar to the adjoining seams, being sure to fill in all the dimples and any holes or voids within 3 in. of each side of the seam. Apply additional mortar over the seam using a 1/4 in. x 3/16 in. V-notched trowel in parallel ridges.

2. Center USG Durock™ Waterproofing Membrane Band over the seams, allowing at least 2 in. of band on each side of the seam. Embed USG Durock™ Waterproofing Membrane Band. Work the band into the mortar with a float or the trowel's flat side while the mortar is still workable.



3. To waterproof around the walls of the installation area, take a pre-measured length of USG Durock™ Waterproofing Membrane Band and fold it in half along its length. One side of the fold will be adhered to the floor and the other side will be adhered up the wall. Follow the first two steps for applying mortar and embedding USG Durock™ Waterproofing Membrane Band.

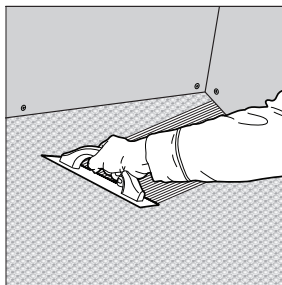
To ensure proper installation flood test the floor to check for leaks before installing tiles.

TILE INSTALLATION

1. In accordance with the TCNA Handbook for Ceramic Tile Installation and with porcelain tile manufacturers, use an unmodified or polymer-modified mortar suitable for tile installation.

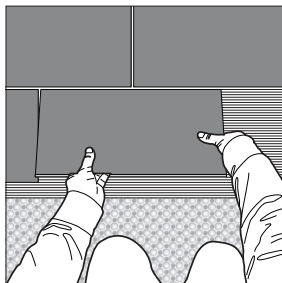
For fast-track and exterior installations, use a rapid-setting polymer-modified mortar.

2. Skim coat the surface of USG Durock™ Uncoupling Mat using the flat side of a trowel, making sure that the dimples and fabric are completely filled with mortar.



3. Immediately apply additional mortar and comb in one direction over the membrane using the recommended notched trowel size and shape suitable for the size and type of tile being installed.

4. Install tile or stone. Check frequently for adequate mortar coverage under the tile.



FOR WATERPROOF APPLICATIONS

Interior tile or stone installations can take place immediately after the USG Durock™ Uncoupling Mat installation. Exterior tile or stone installations must wait until the mortar under the USG Durock™ Uncoupling Mat has reached a sufficient cure.

GROUT INSTALLATION

1. Select an appropriate cement, ready-to-use, or epoxy grout for the jobsite conditions.

For exterior installations, USG recommends using a rapid-setting grout. Longer drying times may be required before grouting when installing large-format tiles greater than 12" x 12".

TECHNICAL DATA

Property	ANSI / ASTM Test	USG Durock™ Uncoupling Mat
Thickness	n/a	1/8" (3 mm)
Fungus and microorganism resistance	ANSI A118.10	No mold growth
Seam strength	ANSI A118.10/ASTM D751	>8 lbs./in.
Breaking strength	ANSI A118.10/ASTM D751	>170 psi
Dimensional stability	ANSI A118.10/ASTM D1204	<0.7%
Waterproofness	ANSI A118.10/ASTM D4068	Pass
Shear strength to ceramic tile and cement mortar	ANSI A118.10/ASTM C482	>50 psi
Point load	ANSI A118.12	>1000 lbs.
Crack resistance	ANSI A118.12	No failure up to 1/8 in. crack opening
Robinson Service Rating	ASTM C627	Wood substrate, 24" o.c. – Heavy Concrete slab – Extra Heavy

PRODUCT INFORMATION

See usg.com for the most up-to-date product information.
Product safety information: 800 507-8899 or usg.com.
Customer Service: 800 USG.4YOU (874-4968).

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