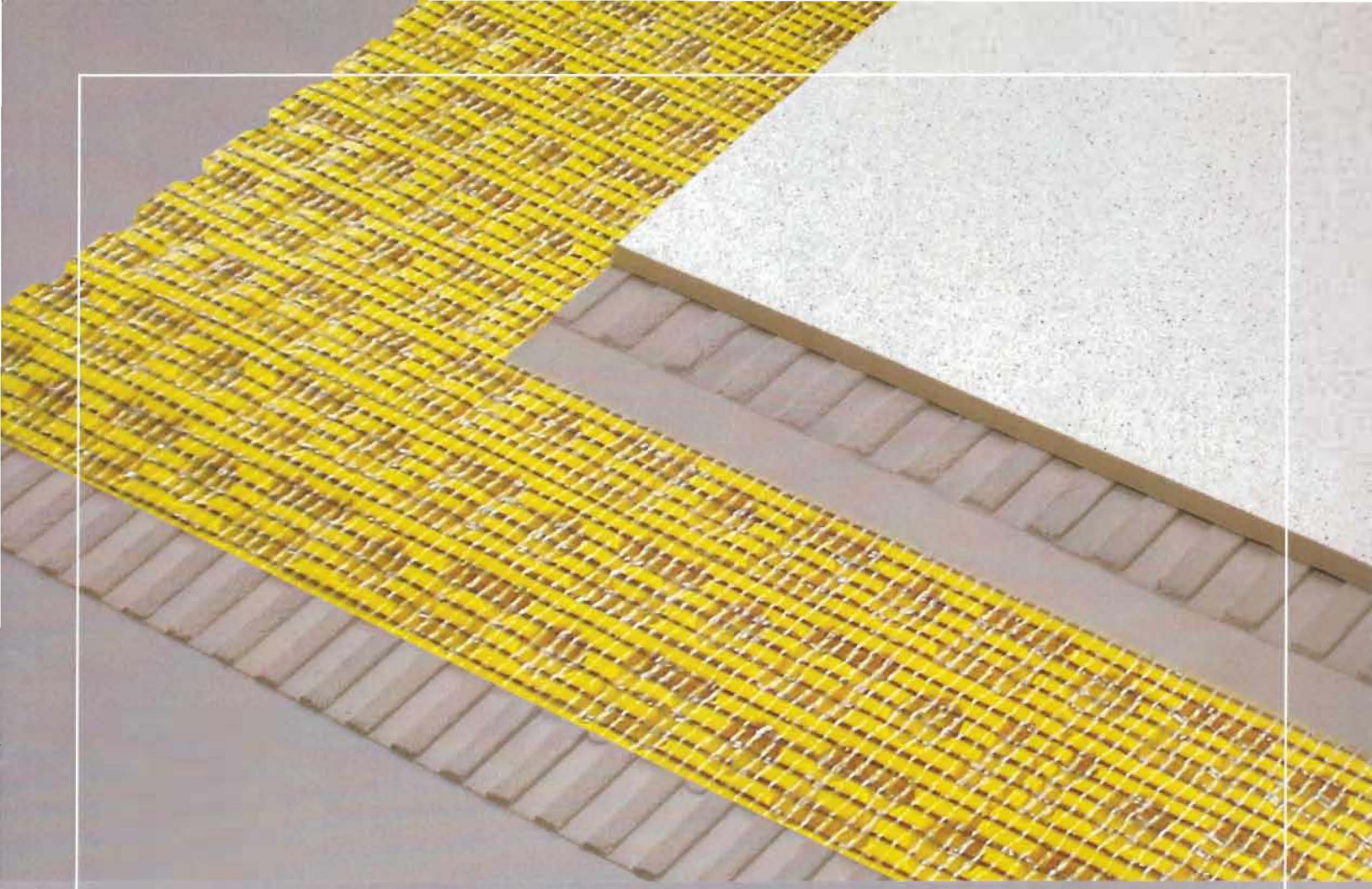


DURABASE CI PLUS

"The Perfect Solution"

PROVIDES WATERPROOFING AND VAPOR MANAGEMENT

SUPERIOR POINT LOAD DISTRIBUTION

PROVIDES CRACK ISOLATION OF UNSTABLE SUBSTRATES

THE ULTIMATE LOCKING SYSTEM TO PROVIDE MORTAR TO TILE BOND

DURAL

MEETS ANSI118.2 STANDARDS

Member of TCNA
TILE COUNCIL OF NORTH AMERICA, INC

Do you want to install more square feet with less effort, waste, transportation time and have a warranty that will guarantee you no call-backs and down time? Did you know that the average waste with cement board is around 15% to 20%? CI Plus Mat will cut that to 3% to 5%. Introducing the DURABASE CI PLUS mat; it's an ultra light 42 lb roll of an "uncoupling" underlayment system for tiled flooring that allows the installer to cover 323 sq. ft. with less EFFORT, TIME & ENERGY which equals more money.

DURABASE CI PLUS is an extremely versatile floor underlayment designed specifically for tile and natural stone installations.

DURABASE CI PLUS neutralizes stresses and isolates cracks in the substrate, installs over difficult substrates, is lightweight and saves installation labor time versus traditional cement board materials.

The easy carry rolls are made of lightweight polyethylene with specially undercut pockets achieving a very high rigidity combined with ideal bonding to thin-set mortars. With an installation height of approximately 1/8 (3m), DURABASE CI PLUS easily transitions to other surfaces. Finally, the material is elastic, rot proof, and resistant to aggressive substances and liquids such as alkalis, solvents and oils.

Durabase CI Plus is approved for Ceramic Porcelain and Natural Stone.

Material

- **DURABASE CI PLUS is Waterproof!** Its HDPE polyethylene provides Moisture Control, Flexibility, resistance to mold and mildew and provides a reliable waterproof layer in the floor system. Its polyethylene composition protects the subfloor from moisture penetrating through to your floor. This is most important in today's building environment.
- **DURABASE CI PLUS offers superior Point Load Distribution!** Its HDPE polyethylene with column like pattern creates strength for support and load distribution. The Cylinder design allows moisture vapor management, so where moisture can be a concern, DURABASE CI PLUS allows moisture vapor to wick into the cylinder columns patterned throughout the underlayment.
- **DURABASE CI PLUS Eliminates Cracking and Unstable Substrates!** It offers an uncoupling layer through a non-woven fleece and column like structure which allows in-plan movement through the support columns thus eliminating the major cause of cracking and delaminating of the tiled surface.
- **DURABASE CI PLUS has The Ultimate Locking System!** A unique polyethylene scrim located on top of the underlayment locks the tile flooring to the underlayment creating a one part system that is able to float over the movement of your home. This integral part of the DURABASE CI is what separates the CI mat from it competition.

THE INSTALLERS CHOICE...THE PERFECT SOLUTION

Dural Durabase CI Plus Mat Installation Instruction

DURAL USA acknowledges that modified and non-modified thin set mortars will work with our DURABASE CI Plus underlayment. Dry times can vary with different type thin set products. Please refer to thin set manufacturers recommendations for best results with these type of "uncoupling" underlayments or call DURAL USA for recommended thin-sets. DURAL USA also recommends referencing the Tile Council of North America, Inc. 2009 TCNA Handbook for Ceramic Tile Installation before your installation.

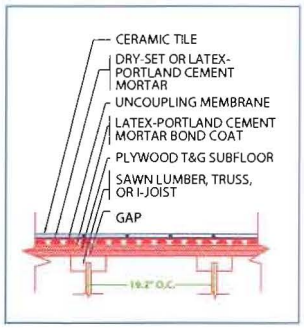
Approved Substrates

Wood Subfloors (APA approved substrates only)

- 16" on-center joist spacing, minimum subfloor thickness: 5/8"
- 19.2" on-center joist spacing, minimum subfloor thickness: 3/4"
- 24" on-center joist spacing, minimum subfloor thickness: 1-1/8" (double layer: 3/4"+3/8")

Limitations

- Minimum 2x2 tiles
- When installing natural stone, subfloor requirements are double layer regardless of joist spacing.



with Wood Substrate

Concrete

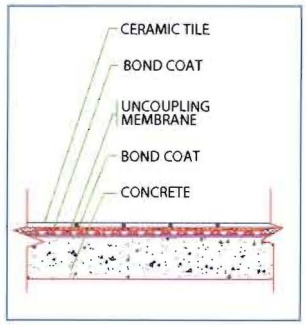
- Over any structurally sound and even concrete subfloor
- Green concrete/young concrete (concrete cured less than 28 days)
- On or below grade concrete subject to moisture migration (DURABASE CI PLUS seams must be taped to create moisture barrier)

· Post-tension or pre-stressed concrete
· Cracked concrete (in-plane movement only)

Limitations

- Minimum 2x2 tile
- Concrete slabs with moisture migration require the DURABASE CI PLUS seams to be taped with DURABASE WP seam tape for moisture protection.
- Cracks in concrete can only be in-plane. DURABASE CI PLUS cannot overcome vertical cracking in concrete subfloor.

All installation methods should follow ANSI and TCNA specifications as well as local building codes.



with Concrete Substrate

Preparing the Substrate

In order to accomplish a successful installation, the area of installation must be:

A. Sound - no chipping or deterioration of substrate that is not repaired or replaced.
B. Stable – no bouncing; no deflection; not spongy or rubbery; no shortage of fasteners.
C. Clean – no loose debris or other matter, such as glue, residue or film, which would hinder the bonding of the modified thinset to the substrate.
D. Level – no crowns or valleys in the installation area; no unintended slope in the overall installation area.

Step 1. Inspect the installation area for the presence of any faults or defects listed above in the substrate.

Step 2. If there are areas where the substrate is not sound, then make the necessary repairs or replacements to the defective area
(Examples: Patch concrete; remove and replace defective plywood of subfloor, etc.).

Step 3. If there are problems with the stability of the floor, this will usually signify a more significant structural problem. Very careful evaluation should be made of wood subfloors to determine if the joist structure is strong enough to support a tile or natural stone installation. It is possible to correct stability issues by "sistering-in" additional plies of joist material or by installing additional piers or foundational supports. Use of some or all of these techniques might permit a successful installation. Before proceeding, discuss this with the builder or architect because of the relative high expense of making some types of these repairs. CAUTION: You cannot expect a successful installation if the substrate is not stable!!!

Step 4. If needed, clean the area of installation. Remove all debris or loose material from the surface – sweep and pick up larger pieces and/or vacuum to remove any smaller or even powdered debris. Remove any glue, residue or film that will hinder the bonding of the modified thinset to the substrate. Some of the necessary cleaning can be accomplished by scraping. Some types of residue will require the application of a chemical cleaner, caustic or removal solution.

Step 5. Any leveling that is needed should be done at this time. All Portland cement based self-levelers need to be installed before installing Durabase CI Plus mat.

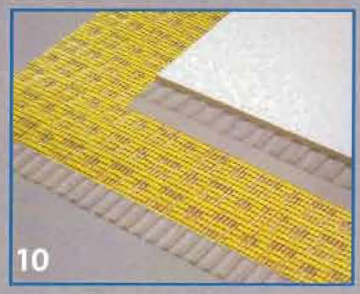
Installing the Durabase CI Plus mat

Step 6. Measure the installation area and cut the Durabase CI Plus mat to fit. Do not butt pieces of Durabase CI Plus mat tightly against each other. Leave room for expansion or contraction joints of 1/8". The recommended tools for cutting Durabase CI Plus mat are a razor knife and/or straight-edged scissors.

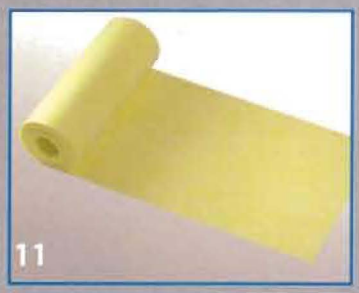
Step 7. Mix the thinset to the consistency of creamy slurry that can easily be rubbed into the fibers on the bottom of Durabase CI Plus mat. Follow the manufacturer's recommendations for mixing thinset. *If applying Durabase CI Plus mat to concrete it is recommended that, at this stage, you wipe down the concrete surface using a damp sponge. This is to remove any residue or film lying loose on the concrete. This process will also hydrate the concrete, resulting in the best possible bond.

Step 8. Use the flat side of your trowel to key or force-fill any holes or voids in the subfloor. This will also help in bonding the thinset to the subfloor.

Step 9. Your trowel may be of three different designs. The first one listed next is the preferred. Using the a. (1/4" X 3/16" V notched), b. (3/16" X 3/16" square notched), or c. (3/16" x 3/16" U notched) side of your trowel, apply the thinset. Once the thinset has been troweled up, place the Durabase CI Plus mat into the thinset while it is still workable.


10

Step 10. Using a tool that will not cut or tear the Durabase CI Plus mat (such as a short piece of 2"X4" wood, a rubber float, the flat edge of a trowel, etc.), rub the product with pressure to work the product into the surface of the thinset. You'll want to obtain 100% coverage. You'll need to lift up a corner of the Durabase CI Plus mat to make sure that you have it. When you are certain that you have full coverage, place the mat back down and rub it into the thinset while the thinset is still workable.


11

Step 11. At this point you can waterproof Durabase CI Plus mat with ease. First, using a 3/16" X 5/32" V notched trowel, apply unmodified thinset. Once this thinset is on the surface, be sure to key in thinset to fill any holes or voids using the flat side of your trowel. Next, apply Durabase sealing tape on top of the seams in the Durabase CI Plus mat. Trowel up the thinset, then center the sealing tape over each seam and finally, rub the Durabase sealing tape into the still-workable thinset.

Step 12. Perform a similar process as in Step 11 all around the walls of your installation area. Begin by taking a pre-measured length of Durabase sealing tape and folding it in half along its length. One side of this fold will be adhered to the floor and the other side will be adhered up the wall. To accomplish this, first apply the needed quantity of thinset in a line around the wall on the floor and also on the wall. Next, rub the Durabase sealing tape into the thinset and smooth with a tool that won't tear the tape. Once this tape is smoothed into place, all that's needed to complete your waterproofing is to let it dry.

Step 13. Install ceramic, porcelain and/or natural stone no smaller than 2" x 2" on Durabase CI Plus mat using unmodified thinset. Follow the thinset manufacturer's recommendations for mixing thinset. With the flat edge of your trowel, key in all holes or voids with the appropriate trowel for the size of the tile being installed. Turn trowel over and use notched side to trowel up thinset to bed tile.

Step 14. When installing tile, use expansion joints at approximately 20' to 24' intervals or above Isolation joints. When installing over crack isolation joints, you do not have to saw the tiles directly over the joint. You can offset the tile by the length of the whole tile, so it breaks at the normal grout joint. Leave a ¼" expansion joint around the walls. Do not hard grout expansion or wall joints; use a flexible product in joints, preferably a Dural DuraFlex expansion profiles to complete the installation and to guarantee "no failures."

Product Data

Product	Durabase CI Plus
Material	High Density Polyethylene (HDPE)
Material Thickness	1/8" (3.0mm)
Width of Roll	3.3' (1m)
Length of Roll	98' (30m)
Color	Yellow
Application	Decoupling / Sealing

Product Data

HIGHLY RECOMMENDED

Product	WP Sealing Tape
Material Thickness	4 mil (.15mm)
Width of Roll	5.875" (150mm)
Length of Roll	98' (30m)
Color	Yellow
Application	Sealing Strip for Durabase CI Plus