floortec - the new uncoupling

floortec - UNCOUPLING MEMBRANE

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Floortec is an installation membrane for ceramic or stone tile based on uncoupling technology. It is placed between the tile and the substrate. Tile and membrane are bonded using appropriate mortar-based adhesives. The membrane is 3 mm - 1/8" in total thickness and composed of high density polyethylene laminated with spunbond non-woven fabric on the underside.

The geometric configuration of the membrane is designed as circular cavities arranged at regular horizontal and vertical intervals. During the installation process, the circular cavities are filled with the mortar-based adhesive to form a solid column structure.

CHARACTERISTICS	VALUE	REGULATION
Total density of the surface	700 g/m² (± 5%)	EN ISO 9864
Thickness at 2 kPa	3,25 mm (± 1 mm)	EN ISO 9863-1
Tensile strength MD/CMD kN/m	8,8 kN/m (± 2)	EN ISO 10319
Elongation with maximum load MD/CMD	33% (± 3)	EN ISO 10319
Tensile strength test	0,4 N/mm ² (+0.1/- 0.2 N/mm ²)	EN 1348
Density of convexity	1.520 cones/m ² (± 5%)	
Empty space between cones	0,45/m ² (± 5%)	
Use temperature	-40 °C ÷ +80 °C -40 °F ÷ +176 °F	
Robinson Wheel Test	Extra Heavy (Passes 1-14cycles)	ASTM C627

* Test Method: MD - Machine Direction / CMD - Cross Machine Direction. Test: L - Longitudinal / T - Transversal

Floortec meets or exceeds ANSI A118.10 and ANSI A118.12 requirements









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floor tec - PROS

floortec - **PROS**

The unique textured surface, obtained through an exclusive production process, allows increased bond strength between mortar-based adhesive, the membrane and the tile.

+ LAY-FLAT TECNOLOGY

The composition of the plastic material is the result of innovative technology which limits "curling" of the membrane allowing faster and easier installation.

+ TRANSLUCENCY

The color was specifically developed to be translucent to allow the installer the ability to verify mortar coverage on the underside of the membrane eliminating the potentially harmful action of occasionally peeling back the membrane.

+ CYLINDERS

The small circular cylinders of the membrane provide increased load resistance due to the fact that a circular column does not contain two breakage axes as does a square column. A circular column distributes the load in a uniform manner along the entire perimeter instead of concentrating the load on four corners, as in a square column.

Certification

floor tec - ROBINSON WHEEL TEST

The most common and recognized standard used to evaluate the performance of tile flooring subjected to loads and hence also used to evaluate the benefit of using an uncoupling membrane such as Floortec is ASTM C627 (Standard Test Method for Evaluating Ceramic Floor Tile Installation Systems Using the Robinson Type Floor Tester).

The sample is tested by using a loaded three-wheel cart which rotates on a sample composed of substrate + membrane + tile.

Load, wheel hardness and the number of rotations vary and increase, according to the targeted level of certification. When the sample reaches a level of damage, defined in the test regulations, the testing is concluded and a certification level is assigned.

> Floortec passed the Robinson Wheel with the hightest rating: "Extra Heavy". The test performed by the TCNA laboratoy concluded without any damage to the assembly.





ANSI A118.10 Exceeds requirements ANSI A118.12



floortec - KEY FUNCTIONS

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TENSION COMPENSATION

between the substrate (concrete or wood structures) and tile.

VAPOR MANAGEMENT

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LOAD RESISTANCE



construction.



temperatures during the winter months.

*The Floortec membrane is composed of a plastic material that is waterproof, but the complete waterproofing of the application must be carried out by using Foiltec strips and corner joints. The incorrect application of these accessories may compromise waterproofing. Additionally, please note that the Floortec membrane cannot be used as a primary waterproofing system, for which a bituminous membrane or similar product must be used.



INSTALLATION

floortec - INSTALLATION



Cut the Floortec membrane to size and spread the thin-set adhesive using a $1/4'' \times 1/4''$ square notched trowel to bond to the substrate.



3. Using a grout float, wood float, or trowel, firmly 4. If waterproofing is desired, bond Foiltec bands over compress the membrane into the thin-set mortar.



2. Roll out the membrane into the thin-set adhesive.

WATERPROOFING*



seams and in corners.



- The open cavities on the underside of the membrane provide pressure relief for moisture rising from the substrate allowing the tile flooring to be installed without the usual curing time for concrete (28 days).
- The circular column support structure on the surface of the membrane provides increased load resistance compared to other-shaped columns: the mortar-based adhesive on the surface of the mat fills the circular cavities forming a solid column support structure. Floortec has been tested by TCNA and passed all 14 cycles (Extra-Heavy Commercial) on the Robinson Wheel Test (ASTM C627) over 19.2" wood frame
- The membrane material, HDPE (high density polyethylene), is waterproof. The top layer of the membrane blocks water infiltration, facilitating the natural water evaporation process. The mortar bed is therefore protected from water percolation and not subjected to damage due to ice formation caused by low



5. When setting tile, fill in cavities using flat side of trowel 6. Laying the floor. and then again using notched side.



