# UnderLock PORCELAIN PAVER SYSTEM

# **Specifications**

# **Product Description:**

UnderLock is a hidden safety and lock down assembly for porcelain paver systems installed primarily over wood/composite decking, concrete balconies and roof/plaza decks over waterproof membrane. The system starts with a composite, reinforced backing system to a standard 2 cm (3/4") thick porcelain paver. This backing provides strength, prevents broken tile from shattering/splintering and allows for pavers system to be connected together and thus prevents vandalism (picking up and throwing of tiles) a common concern for commercial project specifiers. Porcelain pavers are very light (thus subject to being tampered with or moved by high winds) compared to the traditional 2" thick concrete pavers typically used for pedestal systems. The locking feature also prevents the floating paver system from "creep" or "migrating".

#### **Components and Materials:**

The heart of the UnderLock System is the lock down Tab assembly. The Locking Tab consists of Mineral Filled High Density Copolymer Polypropylene Contains 20% Post-industrial recycled material. This Tab has integral spacers that create the open joints for the paver installation. 3/16" joint spacers available. If the installation requires a pedestal system (supplied by others) for setting over sloped plazas and rooftops, the UnderLock Tab assembly is equipped with a stainless steel T-nut heat embedded in the base to accept a stainless steel 9/64 hex socket head screw with washers. This allows for a "floating installation" that ties pavers together and is self-contained on top of pedestal system. If the installation is over wood/composite decking, the UnderLock assembly has a simple hole in the center to allow for a composite deck screw with washer. These assemblies are secured to the substructure, locking the porcelain pavers in place.

#### **UnderLock FF Spacer Unit**



#### UnderLock SD Spacer Unit



UnderLock Composite Reinforced Backing with Straps



Square format



Plank format

Corners on UnderLock Assembly...ready to lock



# Installation :

Each project has its own unique requirements. UnderLock will assist with some instruction and recommended tools and techniques; however, installing contractors should have experience in the installation of similar systems and are responsible for project layout and proper installation. Porcelain pavers should be cut and trimmed in same fashion as porcelain tile. Wet saw will be required.

# Free Floating Installation:

Standard raised pedestal paver layout is also followed to install the Free-Floating Underlock System. At each paver intersection an UnderLock Assembly/Spacer Tab is placed. The corners of the pavers are joined in the Tab by overlapping each corner strap end and then placing the washer on the top strap, the screw with lock washer is slid into the aligned holes (can use a hole punch or awl to align prior to inserting the screw) where it catches the back nut and is then tightened using a 9/64 Hex wrench. The screw will need to be tightened snug by hand. You may use a low torque setting on variable speed cordless drill, then check for snug by hand. Do not fully tighten all screws until installation complete. This will allow installer to align and adjust pavers.

## **Screw Down Installation**

Standard low/no slope open joint layout is also followed to install the Screw-Down UnderLock System. At each paver intersection an UnderLock Assembly/Spacer Tab is placed. The corners of the pavers are joined in the Tab by overlapping each corner strap end and then placing the stainless washer on the top strap, the composite deck screw is slid through the aligned holes and screwed in to place. You may use a low torque setting on variable speed cordless drill, then check for snug by hand. Do not fully tighten all screws until installation complete. This will allow installer to align and adjust pavers.

# Note: UnderLock system utilizes stainless steel straps for strength and longevity. For safety, please keep the packaging on the paver strap ends until final installation.

#### **Product Performance Data**

Thickness: 3/4'' Weight: 10 lbs/psf Freeze/Thaw: RESISTANCE ASTM 1026 Water Absorption: ~0.1% ASTM C 373 Recommended Use: Exterior Slip Resistance:  $\geq 0.60$  ANSI 137.1 (DCOF) Chemical/Stain Resistance: Class: A ASTM C 650, Class: A ASTM C 1378 Breaking Strength:  $\geq 3400$  lbs ASTM C 648 Shading Variation: Random

COLOR SELECTIONS: Huge selection of colors and styles from multiple porcelain paver manufacturers.

Typical Sizes: 24x24 12x24 16x32 16x48 32x32 24x48 48x48