PORCELAIN LANDSCAPE TILE Installation guide





INSTALLATION GUIDE



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The successful installation of porcelain landscape tile from Unilock is dependent on the structural integrity of what lies below the surface of the slabs. This will include many factors such as wood or concrete decking integrity, site drainage, cutting, and quality of concrete mortars and grouts.

INSTALLATION NOTES

- All installations and their respective bases indicated in this guide, should always be installed on undisturbed native subsoil. Provisions for drainage and load-bearing capacity are ultimately the installer's responsibility and can be managed by slope, drains or depth of base.
- 2. Only use cementitious adhesives, modified mortars and grouts that are approved for exterior use. Cementitious bedding is typically made up of two parts masonry sand and one part Portland Type I or Type II cement. Always observe manufacturer's directions and be sure to conform to all ACI (American Concrete Institute) and PCA (Portland Cement Association) standards. Always install in accordance with ASTM C615, Standard Specification for Granite Dimension Stone; ANSI/CTI A108.1, Specification for the Installation of Ceramic Tile; and Terrazzo Tile and Marble Association of Canada (TTMAC), Specification Guide 09 30 00 Tile Installation Manual.
- **3.** Building code requirements may vary. Always review local building codes prior to design and construction.
- 4. Use only approved geotextiles and geogrids.
- **5. DO NOT** compact the surface of porcelain landscape tile with a plate compactor.
- **6.** Porcelain landscape tile installations must always have joints 1/8" 3/16" (3mm 4mm). The use of spacers is recommended.
- Use only diamond blades specifically designed for cutting porcelain landscape tile. Always "wet-cut" porcelain landscape tile and wash slurry residue before installing.
- **8.** Impervious sub-structures must always be sloped for drainage or be designed with provisions for drainage.
- **9.** Thicknesses of base, concrete and bedding indicated in these details are typical. Actual design specifications should always be determined by a qualified professional. All base materials must be placed over undisturbed subsoil and compacted to 95% SPD. Never lay product on topsoil.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Personal Protective Equipment (PPE) should be worn on site such as goggles, N100 stone dust rated masks and gloves, especially when the units are being cut. A minimum requirement for personal protective equipment on site should include a hardhat, protective gloves, protective shoes and high visibility clothing.

DISCLAIMER

The cross sections and diagrams included in this document are intended for the preliminary design and installation of porcelain landscape tile. Unilock cannot guarantee and will not be held responsible for any installation failure and accepts no liability for the improper use of these details.

It is the installer's responsibility to ensure that all site and structural factors are properly addressed and a structural engineer may be required to provide site-specific engineering and installation specifications.

NOTE: Unilock cannot guarantee the tensile strength of porcelain landscape tile for pedestal applications or when substructures shift or deteriorate.

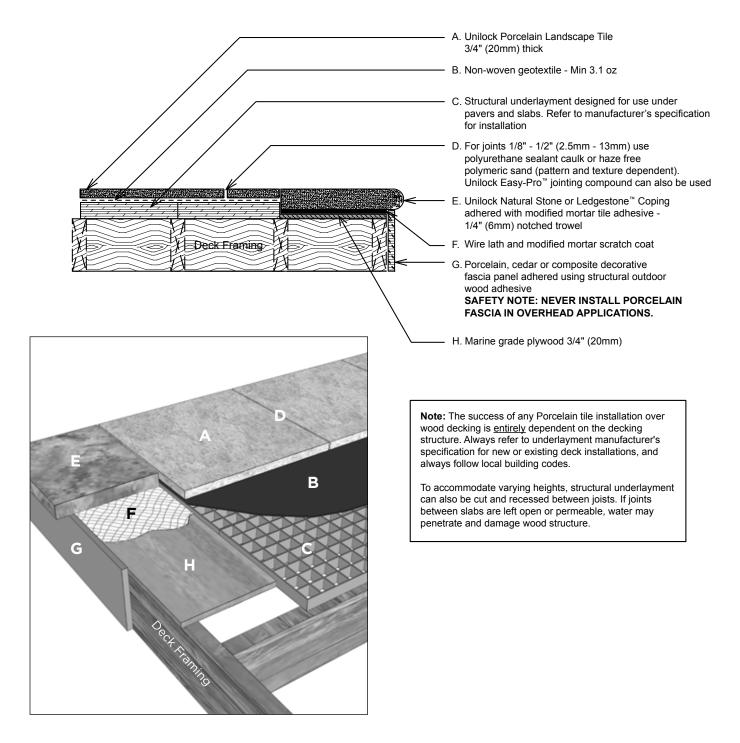


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WOOD DECK VENEER

- STRUCTURAL UNDERLAYMENT FOR ELEVATED DECKS

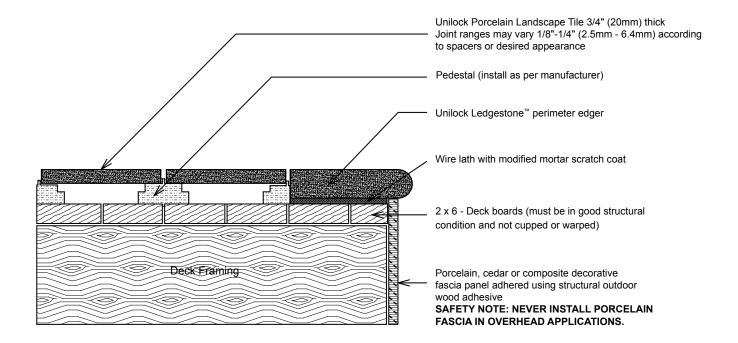


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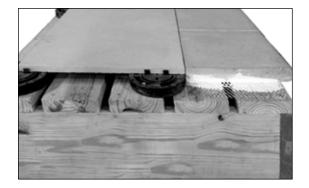


WOOD DECK VENEER

- LOW PROFILE PEDESTAL



NOTE: The longevity of this installation method is directly related to the quality and structural integrity of the wood decking materials.

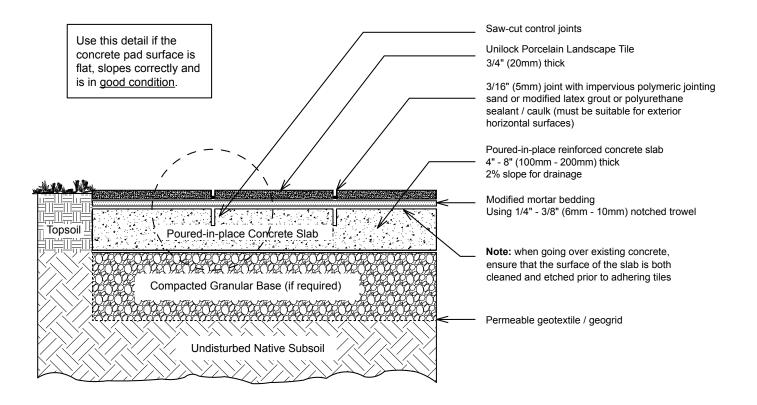


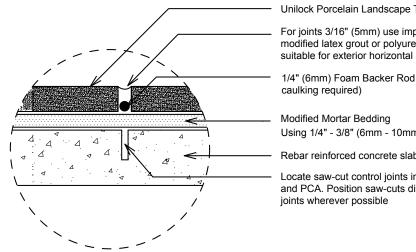
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'JNILOCK' DESIGNED TO CONNECT

NEW OR EXISTING CONCRETE PATIO, PORCH OR BALCONY OVERLAY

- MODIFIED MORTAR BEDDING





Unilock Porcelain Landscape Tile 3/4" (20mm) thick

For joints 3/16" (5mm) use impervious polymeric jointing sand, modified latex grout or polyurethane sealant/caulk suitable for exterior horizontal surfaces

1/4" (6mm) Foam Backer Rod (reduces amount of

Using 1/4" - 3/8" (6mm - 10mm) notched trowel

Rebar reinforced concrete slab

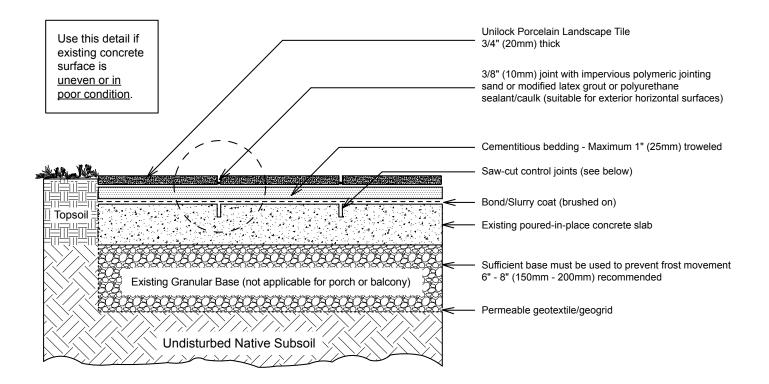
Locate saw-cut control joints in accordance with ACL and PCA. Position saw-cuts directly under paving unit

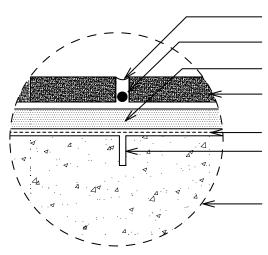
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EXISTING CONCRETE PATIO, PORCH OR BALCONY OVERLAY

- CEMENTITIOUS BEDDING





3/8" (10mm) joint with impervious polymeric jointing sand or modified latex grout or polyurethane sealant/caulk (suitable for exterior horizontal surfaces)

1/4" (6mm) Foam Backer Rod (reduces amount of caulking required)

Cementitious bedding - Maximum 1" (25mm) Troweled

Unilock Porcelain Landscape Tile 3/4" (20mm) thick

Bond/Slurry coat

Locate saw-cut control joints in accordance with ACI and PCA Position saw cuts directly under joints between paving units whenever possible.

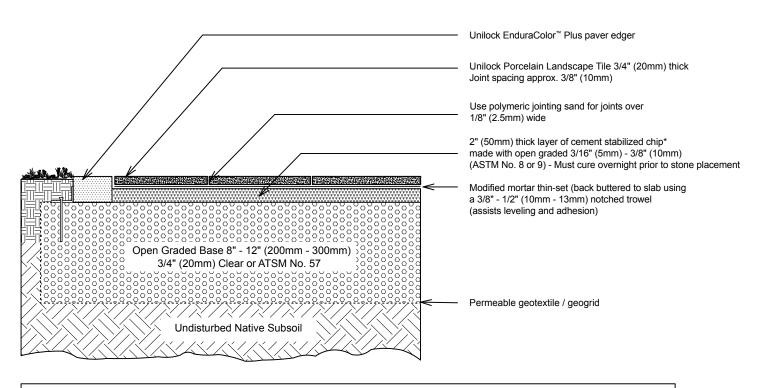
Existing poured-in-place concrete slab

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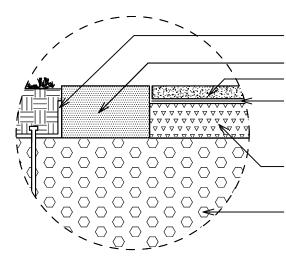


OPEN GRADED BASE - RIGID BEDDING (STABILIZED CHIP)

- FULLY PERMEABLE



*Note: Cement stabilized chip is a mixture of 80% open graded chip and 20% portland cement with enough water to create a pasty yet flow-able mix.



Plastic or aluminum edge restraint secured with 12" (300mm) spikes

Unilock EnduraColor Plus paver edger

Unilock Porcelain Landscape Tile 3/4" (20mm) thick

Modified mortar thin-set (back buttered to slab using a 3/8" - 1/2" (10mm - 13mm) notched trowel (assists leveling and adhesion)

2" (50mm) thick screeded layer of cement stabilized chip-open graded - 3/16" - 3/8" (5mm - 10mm) (ASTM No. 8 or 9) - Must cure overnight prior to stone placement

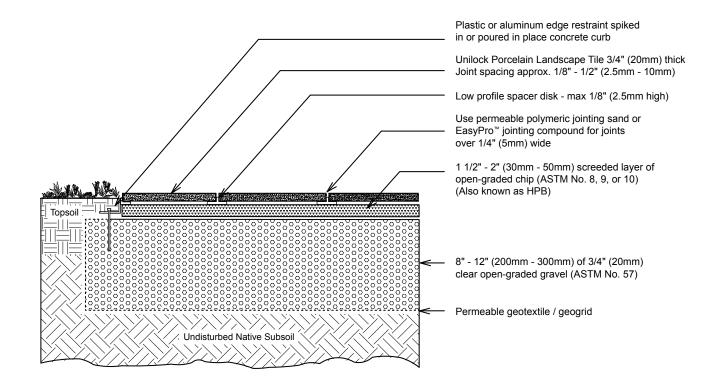
8" - 12" (200mm - 300mm) of open graded base of 3/4" (20mm) clear (ASTM No. 57)

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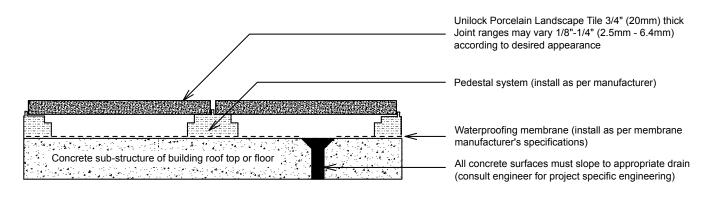


OPEN GRADED BASE - FLEXIBLE BEDDING

- FULLY PERMEABLE



PEDESTAL ON CONCRETE APPLICATION



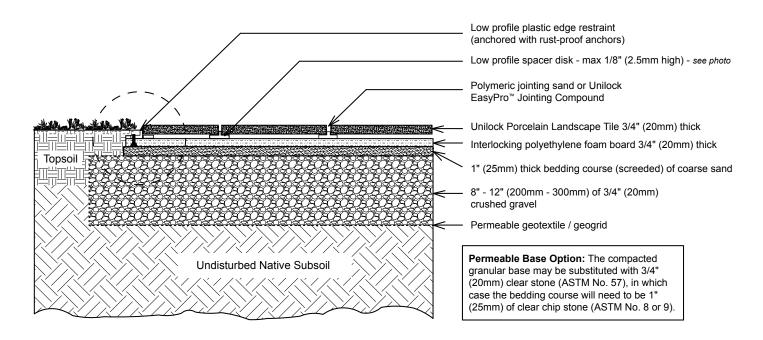
NOTE: Specific installation details may vary based on pedestal height, load-bearing requirements, safety standards and wind-lift. All roof top slab/pedestal installations must be engineered by a professional engineer.

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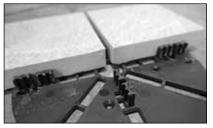
INTERLOCKING POLYETHYLENE FOAM BOARD (IPFB)

- COMPACTED GRANULAR BASE

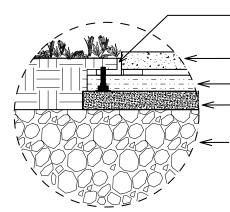


NOTE: Interlocking polyethylene foam board (IPFB) facilitates the rapid installation of porcelain paving slabs. Although foam board distributes load, it is important that the area below the board has good load bearing capacity and provides sufficient drainage to keep the area below free of any frost movement or settlement. IPFB's must have manufactured drainage holes.

Only use IPFB's manufactured for paving applications. DO NOT use for vehicular applications.



Low profile spacer disk.



Low profile edge restraint. Affix to foam board as per manufacturer's specification.

Unilock Porcelain Landscape Tile 3/4" (20mm) thick

Interlocking polyethylene foam board - 3/4" (20mm) thick

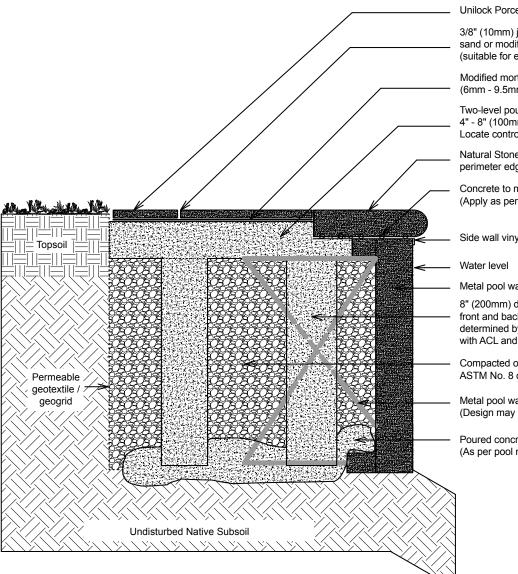
1" (25mm) thick bedding course (screeded) of coarse sand

8" - 12" (200mm - 300mm) compacted granular base 3/4" (20mm) crushed gravel

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POOL COPING AND POOL DECK



Unilock Porcelain Landscape Tile 3/4" (20mm) thick

3/8" (10mm) joint with impervious polymeric jointing sand or modified latex grout or polyurethane sealant/caulk (suitable for exterior horizontal surfaces)

Modified mortar bedding using 1/4" - 3/8" (6mm - 9.5mm) notched trowel

Two-level poured-in-place reinforced concrete slab 4" - 8" (100mm - 200mm) thick, 2% slope away from pool Locate control joints over tubular support footings

Natural Stone or Unilock Ledgestone™ perimeter edger set into modified mortar scratch coat

Concrete to metal (waterproof) adhesive (Apply as per manufacturer's specifications)

Side wall vinyl liner mount

Metal pool wall (vinyl liner type)

8" (200mm) diameter tubular concrete support column front and back of concrete pad. Spacing to be determined by qualified professional and in accordance with ACL and PCA

Compacted open graded granular backfill ASTM No. 8 or 9 or High Performance Bedding (HPB)

Metal pool wall "X" frame support braces (Design may vary per manufacturer)

Poured concrete pool wall foundation / stabilization (As per pool manufacturer's specifications)





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