

INSTALLING DAL TILE® SLIMLITE™ PORCELAIN PANELS - 3.5 MM

Daltile SlimLite Porcelain Panels are designed for conventional wall tile installation and are ideal for installing directly over existing, well-bonded ceramic tile. These porcelain panels are only 3.5 mm thick and are available in sizes up to 39" x 118" (1 x 3 m). SlimLite panels meet the requirements of ANSI A137.3 and are ideal for interior or exterior wall applications. SlimLite Panels are supplied with a back-layered reinforced resin backing.

Because of the large size of these panels, the installer is cautioned that special handling and installation is required. Specialized handling equipment is needed for moving the panels into place. There are also cutting tools that are specifically designed for cutting these large, thin panels. Contact Daltile to determine the recommended handling and cutting equipment.

It is advisable to have only industry certified or highly experienced installers attempt the installation of SlimLite Panels. Trained installers will know how to use the specialized cutting equipment, racks, trowels and other tools that make the installation of these tiles faster and easier. Breakage can be expensive, so it is best to have an expert with SlimLite Panels perform the installation.

Panels must be installed per ANSI A108.19 and the manufacturers' directions.

Surface Preparation

One key to a successful installation of SlimLite Panels is the preparation of the surface. The surface must be flat and true. TCNA guidelines for surface tolerance of large format tile (one side greater than 15") are acceptable. Custom Building Products agrees with the TCNA position and recommends maximum allowable variation of no more than 1/8" in 10' and 1/16" in 2', with no abrupt irregularities greater than 1/32".

Lippage is another concern, as the ANSI A108.19 guidelines allow up to 1/32" lippage between adjacent tiles. This may require use of a mechanical lippage control system, ideally with a removable/replaceable cap to allow for tooling/cleaning during installation. These mechanical clamps help to align the edges of the tile and in many cases reduce lippage to zero. For more information about lippage control systems, contact CUSTOM Technical Services. Because SlimLite Panels do not exhibit warpage, they can be offset in a brick pattern up to 50%.

CUSTOM offers several products to assist in preparing the surface to an acceptable tolerance.

- **CustomFloat® Bedding Mortar** allows for thick bed wall applications. This thick bed mortar is easy to place and screed to a smooth flat surface.
- **Skim Coat & Patch Cement Underlayment** and **CustomTech GenPatch** are both trowel-applied patching and smoothing compounds that can be used to eliminate imperfections in walls. They can be used to bring the surface into the acceptable tolerance.

Once the surface is properly smoothed, it may be necessary to waterproof the substrate before the installation of the tile.

- **RedGard® Liquid Waterproofing and Crack Prevention Membrane** can be applied to a dry film thickness of 15 mils for general waterproofing.

In installations where the new SlimLite Panels will be installed directly over existing older tile, a bond enhancing primer, such as CUSTOM **MBP Multi-Surface Bonding Primer**, will eliminate the need to abrade the existing tile. The primer is simply rolled on the clean and prepared existing tile. Once the primer is dry, it is ready for the thin-bed installation of the SlimLite Panels.

Setting the Panels

When installing the SlimLite Panels, it is important to follow ANSI A108.19 and all TCNA recommendations for the installation of porcelain tile. To assure that the tiles do not crack from point load or impact, it is mandatory that the mortar coverage is greater than 80% for interior walls and 95% for exterior installations and wet areas, with no voids greater than two square inches, ensuring that all corners and edges are fully (100%) supported with mortar. You may want to consider a specialty notched trowel that was designed to maximize the coverage with less effort, such as CUSTOM **SuperiorBill® Premium Notch Trowel**.



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Apply mortar to both the surface of the substrate and the back of the SlimLite Panel. The trowel ridge lines should be applied to the back of the SlimLite Panel parallel to the short side of the panel. The ridges applied to the substrate should be parallel to those on the back of the panel, so they interlock when pressed into place. This will prevent trapping air between the ridges under the tile and creating a void.

To achieve continuous contact between the substrate and panels, a padded, high-speed orbital sander with a soft bonnet can be pressed against the SlimLite Panel surface. Apply pressure and work from center outward to the tile edges. Use the orbital sander to consolidate bonding mortar where tiles meet while mortar is wet in partnership with the mechanical lippage control system.

The SlimLite Panel should be checked regularly to assure full mortar coverage, with particular attention to the edges and corners. Exercise caution when checking the SlimLite Panels for coverage as removal can cause them to crack. The mortar installation instructions must be followed for cure time and allowable traffic.

CUSTOM recommends the following mortar:

- **MegaLite® Ultimate Crack Prevention Large Format Tile Mortar** is a high-strength bonding mortar with exceptional non-sag characteristics. MegaLite's long working time makes it the product of choice for applications in hot, dry or windy conditions.
- **ProLite® Premium Large Format Tile & Stone Mortar** is ideal for installation on walls. Its non-sag formula supports large tiles without mechanical fasteners.
- **EMB-Lite™ Epoxy Bonding Mortar** or **CEG-Lite™ 100% Solids Commercial Epoxy Grout** is highly recommended for ultimate strength.

Grouting the Panels

Grouting should proceed per ANSI A108.10 or A108.6. Since SlimLite Panels are so thin, it is important that the mortar is completely removed from the grout joint as the panels are placed. The grout joints should be tooled or struck clean to the substrate during installation to maximize the joint depth. Mortar left in the grout joint will reduce the grout thickness to less than 1/8" thick and can result in shading and grout cracking. Follow DalTile recommendations for grout joint width.

Consider the use of an Aqua Mix® grout release or penetrating sealer to speed the installation of the grout and avoid potential grout "picture framing" if only spreading grout at the edges of very large tiles such as these panels. CUSTOM recommends the following grouts:

- **Fusion Pro® Single Component Grout®** is ready to use, easy to spread and clean, and offers unsurpassed stain resistance. Fusion Pro is guaranteed stain-proof and color perfect.
- **Prism® Color Consistent Grout** is a fast-setting, high-strength grout that reduces efflorescence and grout shading for joints greater than 1/16".
- **CEG-Lite™ 100% Solids Commercial Epoxy Grout** produces the strongest joint and is preferred for floor applications. Epoxy grout should be used where stain and chemical resistance is critical.

It is important to observe all building codes and TCNA requirements for tile installation. It is vital that all movement joints are no less than 1/8" wide and are properly placed and filled with the appropriate soft jointing material, such as CUSTOM **Commercial 100% Silicone Sealant**. See TCNA EJ171 for proper placement and additional movement joint information. It is the responsibility of the design profession or engineer to determine the location of movement joints. When tiles are 10 feet long, proper soft joint placement is every grout joint. In these cases, you may want to consider grouting the entire installation with silicone caulk for a uniform appearance.

- **Commercial 100% Silicone Sealant** meets the requirements of EJ171 for use in movement joints between the panels.

Consult the DalTile website for more information on the handling and installation of SlimLite Panels. For additional information about any of the setting materials, contact CUSTOM's Technical Services Department at **800.282.8786**.

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Technical Services 800-282-8786
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