



Installation of Glass Tile with TEC® Ultimate 6 Plus

DATE

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Background

TEC® Ultimate 6 Plus is a high performance, polymer modified, full contact (full coverage) mortar designed for the installation of ceramic, porcelain and natural stone tile. Unlike other mortars, Ultimate 6 Plus has a unique combination of features that allow grouting in 6 hours while providing extended open time. It is ideal for the installation of gauged porcelain tile panels/slabs and large heavy tiles (LHT). Ultimate 6 plus significantly reduces the need for back buttering and has exceptional non-sag/non-slump characteristics for wall and floor applications.

- Now approved for indoor glass applications with intermittent water exposure. (see below)
- Ideal for all Gauged Porcelain Tile Panels/Slabs and LHT installations
- Extended open time and pot life
- Grout in as little as 6 hours
- Superior transfer - full coverage with minimum effort
- Approved for setting and tiling over and under uncoupling membranes
- Non-sag for wall applications and non-slump for floor applications
- Mixes to an extremely smooth, creamy consistency providing superior handling
- Exceeds ANSI A118.4TE and A118.11 specifications
- ISO 13007: Classification C2TEP1

Glass Tile Installation

TEC Ultimate 6 Plus, with its proprietary formulation, has been tested and approved to be used with glass tile for the following applications:

1. Indoor applications only
2. Wall applications only
3. Intermittent water exposure (not for use with submerged applications).
Examples such as:
 - a. Kitchen Backsplash
 - b. Shower wall accents

Note: When installing clear glass tile over waterproof membranes, visible mortar shadowing may occur.

The Materials approved are as follows

1. Clear Glass tiles with no backing with maximum area of 16 in²
2. 12" x 12" Matted Mosaic Tiles with clear or painted Mesh backing
3. 12" x 12" Matted Subway Tiles with Mesh backing
4. Glass tiles with painted backing up to 16 in²

NOTE: Not all coatings used to colorize the back of glass tile are compatible with Portland cement based mortars. Please check with the manufacturer to determine if it will be compatible. For any questions on this, please call our Technical Support Hotline at 1-800-832-9023 for additional support.

Also, if you are looking to install a specific tile not listed in the above material list and would like to use Ultimate 6 Plus, please contact our Technical Support Hotline at 1-800-832-9023 for additional support.

In specifying a setting system for the bonding of glass tile, the following issues must be taken into consideration:

Glass Tile Type: Glass tile can be manufactured in a number of different ways such as clear, translucent with a colored body, or translucent with a colored backing. Each type has a different aesthetic appearance. The color and composition of the mortar can have an effect on the final appearance, especially with clear or translucent tile

Grouting

Grouting of glass tile for grout joints $\frac{1}{8}$ " (3 mm) or less, use white cement based colors only of TEC® AccuColor® Unsanded Grout or TEC® Power Grout® mixed with water. For grout joints greater than $\frac{1}{8}$ " (3 mm), use white cement based colors only of TEC® AccuColor® Sanded Grout or TEC Power Grout mixed with water. TEC AccuColor Grout and TEC Power Grout are polymer modified for dense, hard, properly cured joints. Since some glass surfaces may be subject to scratches from installing sanded grout, follow tile manufacturer recommendations or test a small area prior to use to determine suitability.

Other grouts such as Design FX® and InColor™ can enhance the look and beauty of a glass tile installation. Again, since some glass surfaces may be subject to scratches from installing sanded grout, follow tile manufacturer recommendations or test a small area prior to use to determine suitability.

Additional Information

- Mortar trowel ridges: Mortar trowel ridges may be visible through clear and translucent glass tile. It may be necessary to back-butter or knock down the mortar ridges on the tile to ensure a uniform appearance.
- Bond Strength: Glass is impervious, making it a difficult material to bond. Some glass tile types have backings that also present challenges to bonding. For these reasons it is important to follow the above listed recommendations.
- Alkali-Silica Reaction: Since glass tile is composed of silica, some types can react with the highly alkaline, gray Portland cement mortars. The reaction can result in glass tile degradation leading to discoloration and the potential loss of bond strength. The use of white cement based mortars minimizes these effects. Please refer to glass tile manufacturer for:
 - Tile use and selection criteria
 - Specific installation requirements and techniques

Additional information on Glass installation with other TEC Mortars can be found on the TEC Technical bulletin titled "Installation of Glass Tile with TEC Products".

Questions?

Call the Technical Support Hotline at 1-800-832-9023.

This Technical Bulletin has been prepared in good faith on the basis of information available at the time of publication. It is intended to provide users with information about and guidelines for the proper use and application of the covered TEC brand product(s) under normal environmental and working conditions. Because each project is different, TEC Specialty Products LLC cannot be responsible for the consequences of variations in such conditions, or for unforeseen conditions.

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