

Technical Bulletin #1-B Key Resin Floor Systems Overlaying Ceramic Tile

Ceramic tile (and quarry tile) may be overlaid with Key Resin flooring systems if the tile has acceptable bond to the substrate. This can be determined by “sounding” the tile and/or performing pull-off adhesion testing. Any damaged or delaminated tile should be completely removed including any thinset adhesive or mortar setting bed material. The removed tile cavity substrate must be properly prepared and filled with a graded sand-filled resin mortar prior to overlaying the tile floor. Use a resin that is compatible with the Key Resin flooring system. Confirm acceptable resin type and mortar mix design with Key Resin Technical Service. The tile surface must be cleaned and aggressively prepared with grinding, scarifying, or shot blasting to remove glaze and create a textured surface profile that is a minimum CSP-3. If the tile has been laid in a portland cement mortar setting bed, and/or if the grout joints are filled with a cement-based grout, moisture testing should be performed as outlined in Key Resin Technical Bulletin #1. Use a Key Resin moisture mitigation material if testing confirms excessive moisture or if there are concerns that future moisture in the substrate may increase for any reason.

Grout joints should be filled with a resin slurry or mortar flush with the tile surface prior to overlaying the tile with the Key Resin flooring system. Use a resin that is compatible with the Key Resin flooring system. Confirm acceptable resin type and slurry/mortar mix design with Key Resin Technical Service. One potential problem is the fact that each tile may not be perfectly flush with the adjacent tiles. Tiles with raised edges above the filled grout joints will tend to telegraph up through the resin floor topping depending on the thickness of the topping. This tends to be a visual effect only noticed in reflected light, rather than a discernible raised area or depression in the floor finish, depending on the thickness of the Key Resin floor system. High-build coatings and aggregate filled broadcast systems are both susceptible to this effect, as these thin systems will not level unevenness in the substrate. If this is unacceptable, it may be necessary to overlay the tile with 1/8”+ of a resinous topping and grind the topping to an acceptable degree of levelness/flatness before installing the Key Resin flooring system.

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