

Technical Bulletin #2-A Key Epoxy Terrazzo Recommendations for Crack Treatment, Joint Treatment and Divider Strip Placement

Crack Treatment Procedure

Rout and fill cracks larger than hairline width with rigid epoxy (e.g., Key #715, Key #730, Key #502, Key #108 or other resin approved by Key Resin). Apply Key #580 Flexible Epoxy Membrane across the crack and 12 inches on either side at a spread rate of 40-50 square feet per gallon to achieve 32-40 mils dry film thickness. Optional membrane reinforcement (use when greater movement is expected): Apply fiberglass scrim cloth to the surface of the *cured* Key #580 using Key #502 Epoxy Primer to adhere and saturate the cloth, or gently place the cloth into the wet Key #580 and fully imbed in the membrane.

Note: It is Key Resin's standard recommendation and generally accepted industry standard to treat only individual cracks and saw cuts and bond most of the terrazzo topping directly to the concrete substrate unless cracking is so extensive that individual treatments are not practical.

For extensive cracking (greater than 15% of the total surface area): Apply Key #580 Flexible Epoxy Membrane over entire floor surface as a crack reduction membrane at a spread rate of 40-50 square feet per gallon to achieve 32-40 mils dry. Optional membrane reinforcement (use when greater movement is expected): Apply fiberglass scrim cloth to the surface of the *cured* Key #580 using Key #502 Epoxy Primer to adhere and saturate the cloth, or gently place the cloth into the wet Key #580 and fully imbed in the membrane.

Precaution: If area to receive terrazzo may be subjected to thermal induced movement from sunlight exposure, consult with Key Resin before proceeding with full membrane coverage.

Joint Treatment Procedure, Divider Strips

Control joints (i.e., contraction joints, saw cuts) that are to be overlaid with terrazzo rather than exposing the joint through the terrazzo should be filled with rigid epoxy (e.g., Key #715, Key #730, Key #502, Key #108 or other resin approved by Key Resin). Do not fill joint with Key Joint Filler #780 or Key #108A/#580B joint filler combination unless exposing the joint. Apply Key #580 Flexible Epoxy Membrane across the filled joint and 12 inches on either side at a spread rate of 40-50 square feet per gallon to achieve 32-40 mils dry film thickness. Optional membrane reinforcement (use when greater movement is expected): Apply fiberglass scrim cloth to the surface of the *cured* Key #580 using Key #502 Epoxy Primer to adhere and saturate the cloth, or gently place the cloth into the wet Key #580 and fully imbed in the membrane.

Precaution: Though control joints have been successfully treated with the above procedure and overlaid with terrazzo, excessive future joint movement may create cracks in the terrazzo topping or loss of bond or raised "mole trails" from compression of the filled joint. ***It is recommended to expose all control and expansion joints through the terrazzo using double divider strips terminating on the joint edges and filling the joint with Key #780 Joint Filler or Key #108A/#580B blend (control joint) or urethane sealant (expansion joint) supplied by other manufacturers. Do not use prefabricated double divider strips filled with neoprene to avoid risk of maintenance personnel smearing black stains onto terrazzo surface caused by heat generated from high-speed buffers/burnishers, etc. Cold joints require a single divider strip, or a double strip filled with joint filler.*** If owner or architect chooses to overlay joints

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with flooring system, use procedures outlined above which are considered to be “industry best practice” however cannot be guaranteed to eliminate all risk of potential excess movement. Owner/architect must approve this change in writing with acknowledgement that excessive joint movement may lead to a loss of bond, cracks, or “mole trails” to form in terrazzo topping.

Important: Movement of the substrate may lead to cracks propagating to the terrazzo topping regardless of using industry best practices to provide a crack-resistant flooring system—therefore it is not possible to guarantee a crack-free epoxy terrazzo topping. Cracks that may form in the terrazzo can be easily repaired by routing open the crack and filling with Key #108 epoxy resin and randomly placing terrazzo chips in the resin to help the repair area ‘blend’ with the adjacent terrazzo, followed with spot grinding and sealing.

Divider Strips: Refer to Key Resin Technical Bulletin #56.

Note: Large, expansive areas or long corridors that require full substrate coverage crack isolation membrane will benefit from the placement of a control joint in the terrazzo topping only, not in the membrane or concrete substrate, using double divider strips filled with Key #780 Joint Filler or Key #108A/#580B blend as described above. The spacing of these joints should be discussed with Key Resin Technical Service but a general industry rule of thumb is 30 feet on center. For additional details refer to Key Resin Technical Bulletin #56.

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