

## Technical Bulletin #36 Key Epoxy Cove Base Options to Apply Mortar Over Expansion Joints

Concrete slabs designed as a “floating” slab with an expansion joint at the perimeter adjacent to the wall present a challenge for resinous flooring installations where a seamless cove base is desired. Consider the following information as general recommendations. However, for options #2 and #3 which cover the joint, Key Resin cannot provide an absolute guarantee that cracks will not occur. Exposing the joint is the best option (#1), followed by the SS metal support plate (option #2) and then option #3.

**Option #1:** Floor topping must terminate at joint edge with a divider strip, fill expansion joint with urethane sealant, and either trowel cove mortar only on the vertical (leaving joint exposed), or coat vertical with several applications of Key 544 Epoxy Coating only, in a complimentary color, consider a final coat of Key 445/446 for very light colors. Using Key 544 on the verticals as a substitute for epoxy cove base mortar will reduce cost and have a better appearance.

**Option #2:** At significant extra cost, use a sturdy SS metal isolation/support plate, used as a backing for the epoxy cove mortar (see photo below). This plate will not be placed directly on top of expansion joint but will span over it. For a very wide joint, the metal plate could be applied partially over the filled joint, use bond breaker tape to help isolate it from the joint filler. The unknown issue is this: If the joint expands/contracts enough over time, the stress of that movement might transmit horizontally through the metal base to the front edge termination, causing a crack to form in the epoxy mortar at that point.



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**Option #3:** Fill joint with urethane sealant, apply bond breaker tape over joint, apply Key 502 and imbed/saturate fiberglass cloth (5.7 oz woven cloth) about 4"-6" onto the floor and up the wall just below termination point of cove base, taking care to not create an air void in the corner. Allow to cure. Re-prime with Key 502 and trowel cove mortar over the tacky primer. Also consider adding a layer of Key 580-WG at 30-40 mils (verticals will require several applications) in the area receiving the fiberglass, this would ideally be applied underneath the fiberglass layer, allowing the 580-WG to cure before applying the fiberglass. Alternate procedure to save time/reduce cost, but with somewhat less effective performance: Apply Key 580-WG over filled joint/tape, lightly imbed fiberglass scrim cloth reinforcement.

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