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# Technical Bulletin #6

## Control Joint Repair and Treatment for Seamless Flooring Application

### I. GENERAL INFORMATION

**Key Flooring Systems** sometimes require a finished seamless appearance. Special treatment to control joints, saw-cuts, expansion joints, and surface cracks must be performed in order to achieve this appearance. Through compliance with these basic principles the contractor and his client can anticipate a seamless, crack-resistant floor.

### II. CONTROL JOINTS & SAW-CUTS

Control joints and saw-cuts are placed into concrete slabs to control movement and cracking of the slab. Particular attention should be paid to these in order to prevent cracking and delamination of the epoxy system.

#### A. SPALLED CONTROL JOINT/SAW-CUT REPAIR:

1. "Key" out original spalled joint and fill completely with a mortar using either **Key #502 Primer/Low Modulus Binder** or **Key #510 Epoxy Binder** and sand.
2. Reestablish the control joint with a new saw cut.
3. Fill new saw cut with **Key Joint Filler**.

#### B. HONORING CONTROL JOINTS/SAW CUTS

Where appropriate, control joints, including saw cuts and cold joints, should be honored and brought through the finished flooring system. Saw cuts can be established in one of two ways:

1. Place angle strip back-to-back on either edge of the saw cut. After finishing the floor, pour **Key Joint Filler #780** in the void between the strips. **Key Joint Filler #780** can be made the same or a contrasting color as the floor.
2. Install the flooring system over the entire surface and re-establish the control joint with a new saw cut. Fill the saw cut with **Key Joint Filler #780** as outlined above.

### C. COVERING CONTROL JOINTS/SAW CUTS:

Coating systems are sometimes applied directly over control joints and saw cuts. Beneath  $\frac{1}{8}$ " or thicker applications of **Key Mortar Systems**, **Key Quartz Systems**, and **Key Epoxy Terrazzo** new control joints or saw cut joints can be filled using the following guidelines:

1. Fill control joint/saw cut completely with **Key Joint Filler**.
2. Apply **Key #580 Flexible Epoxy** or **Key #400 Urethane Elastomer** over joint, extending to approximately eight to twelve inches each side of the joint. Imbed fiberglass cloth over that width. The total thickness will be 35-40 mils.
3. Apply specified  $\frac{1}{8}$ " or thicker seamless flooring system over joint to provide a truly seamless floor resistant to cracking.

## III. CRACK REPAIR

When treating and repairing cracks, you must identify the cause of the crack. If a crack is moving, it should be corrected or made into a joint by routing or chasing with a crack chaser (scabber) and then filled with **Key Joint Filler**. If not moving, the cracks must be filled with a material compatible with the flooring system and finished to a smooth finish.

**Fill the entire crack/joint!!** Backer-rod should not be used because it decreases the lateral slab edge support provided by the semi-flexible epoxy sealant.

The application of thicker systems such as **Key Mortar SL(T)**, **Key Quartz**, **Key Mortar STD**, or **Key Epoxy Terrazzo** also require repair of cracks in the substrate. All cracks in the substrate will transmit through the finished system if they are not properly treated with the following steps:

- A. Rout the crack
- B. Completely fill the crack with **Key Joint Filler**
- C. Coat the crack using fiberglass cloth imbedded in either **Key #502 Primer/Low Modulus Binder** or **Key #400 Urethane Elastomer** extending the cloth/resin at least eight (8) inches beyond either side of the crack.

