Treatment of INDIVIDUAL Concrete Cracks with TEC® Products

DATE
March 2020

RECOMMENDATION
The TEC® brand recommends that HydraFlex™ Waterproofing Crack Isolation Membrane or Crack Isolation Sheet Membrane be used over the entire substrate for maximum crack isolation protection. These products may also be used to treat and isolate individual cracks and control or saw cut joints that are at a level horizontal plane and are subjected to horizontal movement of up to \( \frac{1}{8} \) (3 mm), \( \frac{1}{4} \) (6 mm) for HydraFlex™ Waterproofing Crack Isolation Membrane and up to \( \frac{3}{8} \) (9.5 mm) for Crack Isolation Sheet Membrane.

Treatment of Existing Cracks
To properly treat the cracks, first fill the slab fracture with the crack isolation membrane material. Then apply the membrane to the concrete surface at least 12 inches (30 cm) or 1.5 tile widths (whichever is greater) on both sides of the crack. This method will allow substrate movement to be distributed throughout the flexible membrane and not transferred to the tile. An appropriate elastomeric joint material (sealant) is required in lieu of grout in the joints closest to the crack. After a complete cure of HydraFlex™ Waterproofing Crack Isolation Membrane (typically 2-3 hours), install tile with a suitable TEC® latex modified mortar or AccuColor EFX® Epoxy Special Effects Grout and Mortar (AccuColor EFX® is for interior use only). If you’re using Crack Isolation Sheet Membrane, you can peel and stick the product for quick and easy installation, and start floor installation immediately after the product is set in place.

![Fig. 1: Pretreatment with TEC® Membranes](image)

PRODUCT USE ON MOVEMENT JOINTS
Movement joints are essential for the success of most tile installations. Use of HydraFlex™ Waterproofing Crack Isolation Membrane or Crack Isolation Sheet Membrane over the movement joint is dependent on the type of joint encountered. Refer to TCA Handbook Method EJ171 for recommendations on installation of generic movement joints in the tile to address tile expansion and contraction.

Control Joints/Saw Cut Joints
A Control Joint or a Saw Cut Joint is a formed, sawed, or tooled groove in a concrete structure to create a weakened plane and regulate the location of cracking resulting from the shrinkage of the slab. HydraFlex™ Waterproofing Crack Isolation Membrane or Crack Isolation Sheet Membrane can be used over control joints and saw cut joints provided that the joint movement is no more than \( \frac{1}{8} \) (3 mm) in a horizontal plane, \( \frac{1}{4} \) (6 mm) for HydraFlex™ Waterproofing Crack Isolation Membrane or \( \frac{3}{8} \) (9.5 mm) for Crack Isolation Sheet Membrane (i.e. Generally at least 1 control joint/saw cut joint per 12 to 15 ft. [3.6 to 4.6 m] span of concrete for a 6 inch [15 cm] thick slab). An appropriate elastomeric joint material (sealant) is required in lieu of grout in the grout joints closest to the control joint.

Construction Joints/Cold Joints
A construction or cold joint is formed when two successive placements of concrete meet. An example is where concrete placement work is stopped at the end of one day and started again on the following day. Treat construction joints in the same manner described above for control joints.

Expansion Joints
Expansion joints are designed separations between adjoining parts of a slab to allow movement where expansion and contraction is likely. Expansion Joints need to be respected and brought up through the tile with an appropriate elastomeric joint material (sealant). As a result, tile or stone should NOT be applied directly over expansion joints.

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, H.B. Fuller Construction Products Inc. cannot be responsible for the consequences of variations in such conditions, or for unforeseen conditions.