



Krystol® Crack Repair System

SCOPE

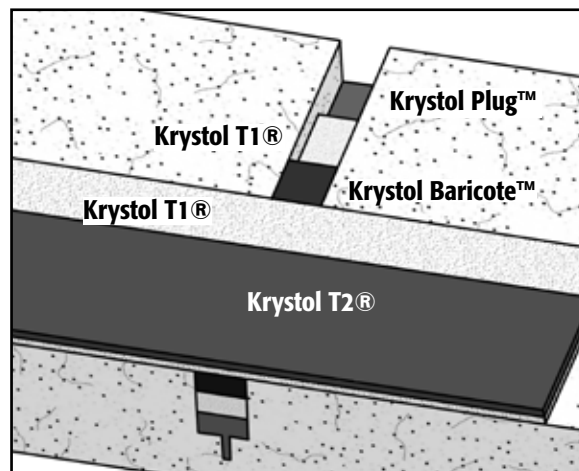
Application Instruction 301 describes the essential steps for successfully waterproofing leaking cracks, joints, and holes in concrete using the Krystol Crack Repair System.

LIMITATIONS

Do not use Application Instruction 301 to repair cracks or joints that are subject to movement. Moving cracks can only be repaired using a flexible system such as urethane injection.

SAFETY PRECAUTIONS

Cementitious compounds become caustic when mixed with water or perspiration and can cause serious chemical burns. Avoid contact with skin or eyes. Avoid breathing dust. Wear safety goggles, impervious gloves and long sleeves. See the Material Safety Data Sheet for more information.



STEP 1: PREPARE THE CRACK OR JOINT

1. Using a sharp 25mm (1-inch) wide chisel, chip a 25 mm (1 inch) wide chase along the entire length of all cracks to a minimum depth of 40 mm (1.5 inches). The shape of the chase is critical to your success. The chase must be square shaped and deeper than it is wide. If the concrete breaks apart near the surface, you must chisel deeper to obtain the required 25 mm by 40 mm size and shape.

TIP: When chiseling, do not place the chisel inside the chase. Instead, place the chisel on the concrete surface over the crack about one inch ahead of the chase and direct chisel pressure back towards the chase so that the piece being removed falls into the chase. Chisel to the full depth of 40mm before moving on. This method is proven to be most productive, requires the least effort and will result in a chase that is the proper shape.

2. Wash chase with water so that it is clean. Use a vacuum if necessary to remove dust, debris or water.

TIP: Be sure to repair the full length of the crack. If you repair only the area that is currently leaking, the water will likely migrate to the un-repaired section and you will be back to repair a new leak.

IMPORTANT: You must complete steps 2, 3 and 4 all on the same day. Do not begin step 2 unless you can complete step 4.

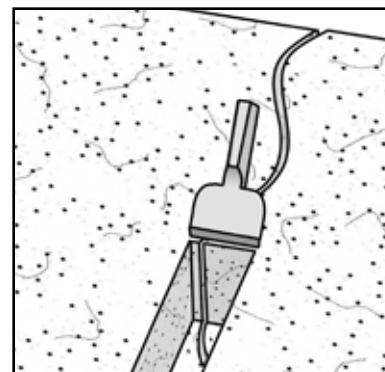
STEP 2: STOP ANY FLOWING OR SEEPING WATER

Note: You may skip step 2 if the crack is dry at the time of the repair

1. Mix plug to a putty consistency (4 parts powder to 1 part water). Mix only enough material as can be placed in 1 minute.
2. Using a gloved hand, press the putty into the chase stopping the water in that spot. Hold without moving until set. Do not move or work the plug after pressing it into place or it will come apart.

TOOLS AND MATERIALS

- Krystol T1®
 - Krystol Bari-Cote™
 - Krystol Plug™
- Note:** For every 30 meters (100 feet) of crack you will require approx. one 25 kg (55 lbs.) pail of each product).
- Clean water source
 - Mixing bucket and mixer
 - Chipping hammer with 1" square chisel blade
 - One inch wide margin trowel
 - Natural bristle concrete brush



Step 1
Chisel and prepare the crack



Application Instructions

Application Instruction 301

3. Repeat this procedure, working from one end of the crack to the other until all flowing or seeping water has been completely stopped.

TIP: Areas of very high water flow should be left to last. Insert a rubber hose at the worst location and install Plug around it. Removing the hose will leave a deep narrow hole that is much easier to Plug with a single ball of material.

IMPORTANT: When finished, the plug must not fill more than one-third of the depth of the chase. If the Plug fills more than one-third, use a chisel to remove the excess Plug immediately so that at least one inch of space remains in the chase.

STEP 3: INSTALL KRYSTOL T1®

1. Ensure that the concrete is saturated with water, but that no water remains on the surface.

IMPORTANT NOTE: A saturated surface-dry (SSD) condition is extremely important to your success. The concrete must be completely saturated with water to allow the Krystol® chemicals to penetrate deeply and react. The outer surface, however, must be only slightly damp, so as not to dilute and weaken the bond of the Krystol® application.

2. Mix Krystol T1® to a very dry consistency (approximately 5 parts powder to 1 part clean water). Use as little water as possible.
3. Pack the Krystol T1® tightly into the chase to a maximum thickness of 13 mm (1/2").
4. The chase should now be maximum two-thirds full (or one-third full if step 2 was skipped). It is essential that enough space remains to install at least 13mm (1/2") of Krystol Bari-Cote™.

STEP 4: FINISH FLUSH WITH KRYSTOL BARI-COTE™

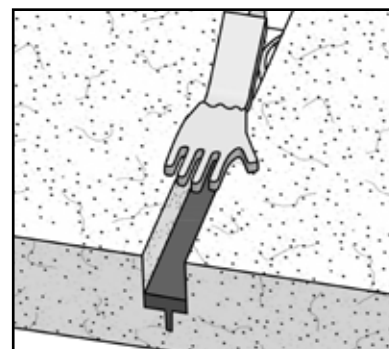
1. Mix Krystol Bari-Cote™ to a stiff putty consistency (approx. 4 parts powder to 1 part clean water). Mix only as much as can be placed in 15 minutes.
2. Ensure that the concrete is in SSD condition.
3. Use a trowel to fill the rest of the chase with Bari-Cote flush to the surface (outer third or outer two-thirds if step 2 was skipped).

STEP 5: APPLY KRYSTOL T1® SLURRY COAT

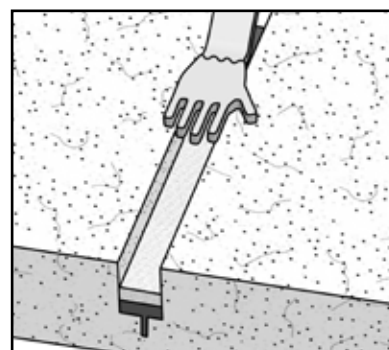
1. Mix Krystol T1® to a slurry consistency (3 parts powder to 1 part clean water). Mix only as much as can be placed in 30 minutes.
2. Ensure that the concrete is in an SSD condition.
3. With a concrete brush, use an aggressive, circular scrubbing motion to apply the T1 slurry to the repair area, extending at least 6 inches to either side of the repair. Apply at 0.8 kg/m² (1.5 lbs./yd²).

TIP: It is highly recommended that the entire wall, floor and/or ceiling be treated with the Krystol T1® slurry coat followed by a slurry coat of Krystol T2®. For more information, see Application Instruction 304.

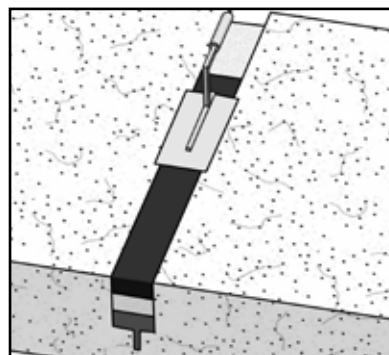
4. Krystol growth and migration only occurs in the presence of water. For this reason Krystol T1/T2 must be "wet (moist) cured" for at least 3 days (continued curing for several days or even weeks will be beneficial in most cases). During the curing period, treatment area must be protected from frost, rain and traffic at least 24 hours.



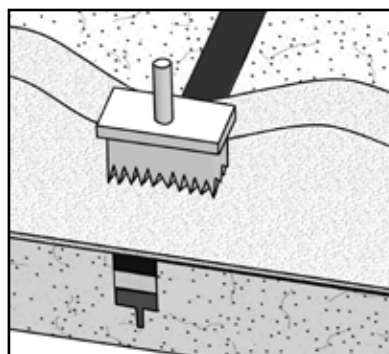
Step 2
Install Krystol Plug™



Step 3
Install Krystol T1®



Step 4
Install Krystol Bari-cote™



Step 5
Install Krystol T1® & T2® slurry coats