



Krytol® Leak Repair System

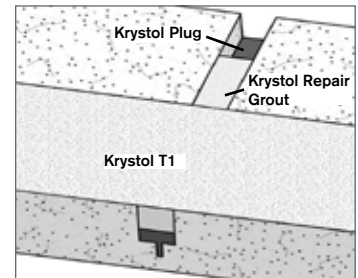
Waterproofing Cracks, Holes & Joints

DESCRIPTION

Use this leak repair system to permanently waterproof leaking cracks, joints, and holes in concrete. It is installed in place of other less reliable crack repair systems and allows the concrete to be protected from any direction, even under high hydrostatic pressure. Use these instructions to repair leaks from either side of the concrete.

LIMITATIONS

This repair system is effective for rigid structures only and may not reliably repair cracks or joints that are subject to movement. Moving cracks can only be repaired using a flexible system such as urethane injection. Concrete with many closely spaced cracks (map cracking) must be repaired carefully. Consult your Kryton representative. Air and surface temperatures must be at least 4°C (40°F).



SAFETY PRECAUTIONS

Read the Material Safety Data Sheets (MSDS) for these products. For professional use only. These products become caustic when mixed with water or perspiration. Avoid contact with skin or eyes. Avoid breathing dust. Wear long sleeves, safety goggles and impervious gloves.

STEP 1: PREPARE THE CRACK OR JOINT

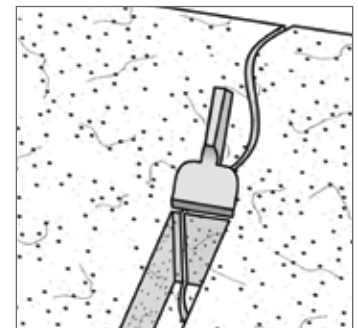
IMPORTANT: Be sure to repair the full length of the crack. If you repair only the area that is currently leaking, the water will likely migrate to the un-repaired section and you will be back to repair a new leak.

- Using a sharp 25 mm (1 in.) square chisel, chip a 25 mm (1 in.) wide chase along the entire length of the crack to a minimum depth of 40 mm (1.5 in.). 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 (1 in. by 1.5 in.) 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 40 mm (1.5 in.) 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.

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

TIP: Grind or wire brush the concrete 6 inches on either side of the repair to expose clean, sound concrete. This will provide better adhesion for the Krytol T1® coating (step 4).



Step 1: Chisel and prepare the crack



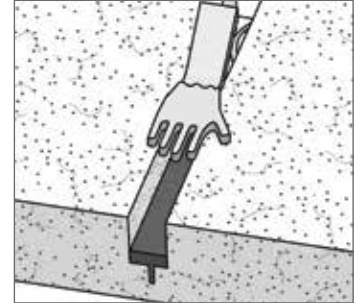
BE SURE. BE KRYTON.

STEP 2: STOP ANY FLOWING OR SEEPING WATER (IF APPLICABLE)

If there is no active leaking at this time, you may skip to step 3.

1. Mix Krystol Plug™ to a putty consistency (4 parts powder to 1 part clean water). Mix only enough material as can be placed in 1 minute. Use cold water.
2. Using a gloved hand, press the putty firmly into the chase to stop the water in that spot. Compact the Krystol Plug so there are no voids behind it and hold without moving until set. Do not move or work the plug after it has started to set or it will break apart.
3. Repeat, working from one end of the crack to the other until all water has been completely stopped.

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



Step 2: Install Krystol Plug

IMPORTANT: When finished, the plug must not fill more than one-third of the chase. The maximum thickness of Krystol Plug is 13 mm (0.5 inches). Use a trowel or chisel to scrape out any excess Krystol Plug so that at least 25 mm (1 in.) of space remains in the chase.

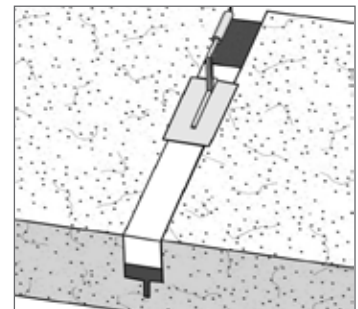
IMPORTANT: Do not allow Krystol Plug to build up on the walls of the chase. Remove excess Krystol Plug from the walls so the remaining materials can bond directly to clean concrete.

IMPORTANT: All water seepage must be stopped before proceeding. Touch up work may be needed to stop all the water.

STEP 3: INSTALL KRYSTOL GROUT

1. Ensure that the chase is in SSD condition. Dampen with water, then remove any standing water before proceeding.
2. Mix Krystol Grout to a stiff putty consistency as follows: Start by mixing 3 parts powder with 1 part clean water by volume until smooth. Add an additional part of powder (for a total of approximately 4 to 1) and continue mixing to obtain a sag free paste. The mixture will appear dry at first, but with mixing will become smooth and workable. If the grout sags during installation, mix in extra powder until the grout holds in place.
3. Tightly pack the Krystol Grout into the keyway so that it is flush with the surface.
4. Protect the Krystol Grout application from damage by rain, rapid drying or freezing for at least 24 hours.

IMPORTANT: Mix only as much material as can be placed in 20 minutes. Warm temperatures will reduce working time. Note that material left standing will stiffen, but mixing will restore plasticity. Do not add water to the material once it has started to set. Over-watering will result in cracking.



Step 3: Install Krystol Grout

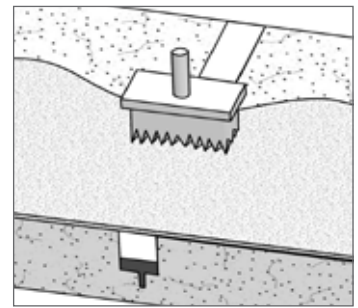


STEP 4: APPLY KRYSTOL T1 COATING

1. Mix Krystol T1 to a fluid paste (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 SSD condition.
3. With a concrete brush, use an aggressive, circular scrubbing motion to apply the Krystol T1 coating over the repair, extending at least 15 cm (6 in.) on either side. Apply at 0.8 kg/m² (1.5 lb./sq. yd.). The coating should be 1-2 mm thick.

TIP: It is highly recommended that the entire wall, floor and/or ceiling be coated with Krystol T1. For more information, see Application Instruction 2.11 — Waterproofing with Surface Application (Brush Method) or 2.12 — Waterproofing with Surface Application (Spray Method).

4. Protect the repair from drying out. Cover the repair with tarps or plastic to prevent water loss due to evaporation. Once the Krystol T1 coating has hardened, mist the surface with water as needed to keep the repair damp for at least 3 days. Protect the repair from frost, rain and traffic for at least 24 hours.



Step 4: Apply Krystol T1 coating

COVERAGE

Material	Coverage
Krystol Plug	30 m per 25 kg pail (100 ft. per 55 lb. pail)
Krystol Grout	10 m per 25 kg pail (33 ft. per 55 lb. pail) when used without Krystol Plug 15 m per 25 kg pail (50 ft. per 55 lb. pail) when used with Krystol Plug
Krystol T1	0.8 kg/m ² (1.5 lb./sq. yd.) = 31 m ² per 25 kg pail (330 sq. ft. per 55 lb. pail) (When applied over a crack in Step 4, one pail of Krystol T1 will cover 30 m of crack)

TOOLS & MATERIALS

- Krystol Plug
- Krystol Grout
- Krystol T1
- Chipping hammer with 25 mm (1 in.) square blade chisel
- Clean water source
- Mixing bucket
- Margin trowel
- Natural bristle concrete brush