



• Pipe Penetration

Description: Use this procedure to waterproof pipe penetration

Limitation: This system is not effective on moving subjects, but is only effective on solid subjects. Contact your CWP representative. The temperature should not be less than 4°C.

Safety precautions: This product is for professional use only, so read carefully the Material Safety Data Sheet. It can be caustic if you mix it with water or perspiration. Keep away from skin or eye contact and breathing its dust. Always wear safety goggles, long sleeves and gloves

Step 1:

- Use a 25mm squared chisel to chip a 25mm chase around the pipe. Its depth should be 40mm.
Tip: In order to have the best and the most productive result, put the chisel about one inch ahead of the surface of the crack and press back towards the chase. Chisel to the full depth which means 40mm.
- Clean the chase with water. Use a vacuum if necessary to remove dust, debris or water.

Step 2:

If you don't witness any leaking you can skip this step.

- Mix Krystol Plug to a putty consistency (knowing that 4 parts of powder need 1 part of clean water). Make a mixture that will be used within 1 minute.
- To block the water, press the putty in the chase and compact it very well. Do not forget to wear gloves. Try to not move the plug or it will break apart.
Keep on doing this process until all water has been completely blocked.

Important: The plug must fill maximum one third of the chase. If the amount of Krystol Plug fills more than the third use a chisel to remove it

Step 3: Pipe Preparation

- It is essential to prepare the pipe surface so that the repair products will suitably adhere to the pipe before installing the repairs material.
 - a. Metal Pipes: The surface of a metal pipe should be cleaned and roughened, especially the area that will be in contact with the Krystol® repair materials. Clean all grease, oil, corrosion, and scale. To accomplish a coarse surface profile, abrade by coarse sanding or sandblasting
 - b. PVC or ABS Pipes: The surface of a PVC or ABS pipe must be ready through applying a silica sand layer to the area that will be in contact with the Krystol repair materials. The sand is adhered to the pipe using the joint cement (glue) that is usually used to gather the pipe sections.

- a. Using the suitable joint cement for the material (either PVC or ABS joint cement), use a thick coating of joint cement to the pipe in the area that will contact with the Krystol repair materials. Instantly apply dry silica sand to the joint cement to totally cover it.
- b. Let the joint cement become harder then remove excess loose sand through using a blow pipe or vacuum. This will lead to a continuous coating of dry silica sand firmly cemented around the pipe. This dry sand layer will give the adhesion of the Krystol repair materials.

Step 4: Install Krystol Repair Grout

- Make sure that the chase is in SSD condition. Dampen with water, after that, remove any standing water before continuing.
- Mix Krystol Repair Grout to a stiff putty consistency as follows: Begin by adding 3 parts powder with 1 part clean water by volume until smooth. Add an extra part of powder (for a total of approximately 4 to 1) and continue mixing until you have a sag free paste. At first, the mixture will look dry but with mixing will become smooth and workable. Mix in extra powder until the grout holds in place, if the grout sags during installation tightly pack the Krystol Repair Grout into the keyway so that it is flush with the surface

1. A protection must be ensured for Krystol products from rapid drying and kept damp in order to develop their full properties. To contain moisture, cover the repair with plastic sheeting or damp burlap. After the repair has become harder, mist the surface with water to keep moisture levels for 48 hours.

2. For at least 24 hours, protect from freezing temperatures.

TOOLS & MATERIALS

Krystol Plug

Krystol T1

Krystol Bari-Cote

Clean water source

Mixing bucket

Margin trowel

Chipping hammer with 25 mm (1 in.) square blade chisel



• Tie Rod Hole Treatment

Description: Use Krystol Plug and KrystolWatershop Grout (External) in order to repair defects in concrete and to make it waterproofing. The three general types of applications are tie holes, rock pockets and pop outs. It is acceptable to replace Krystol Bari-Cote with KrystolWatershop Grout (External) in some cases. Consult the Application Instruction 5.21 — Placing Defective Concrete and for specific recommendations contact your CWP representative.



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Step 1:

- Tie holes In order to expose tie holes, remove plastic cones, snap-ties and tapered rods from the concrete.
- General repairs With a chipping hammer and a sharp, flat 25mm chisel rout out the defect so the edges would be squared.
- Wash the area with water. Use high-pressure water blasting or mechanical cleaning in order to remove any release.
- It is not acceptable to use an acid cleaner. To remove dust, debris or water uses a vacuum.

Step 2: If you don't witness any leaking you can skip this step.

- Mix Krystol Plug to a putty consistency (knowing that 4 parts of powder need 1 part of clean water). Make a mixture that will be used within 1 minute.
- To block the water, press the putty in the chase and compact it very well. Do not forget to wear gloves. Try to not move the plug or it will break apart.

Important: Krystol Plug should fill maximum one third of the tie hole or the defect. If it exceeded the third use a chisel to remove it and to keep the other two thirds free for KrystolWaterstop Grout

Step 3:

- Mix KrystolWaterstop Grout to a rigid putty (knowing that 4 parts of powder need 1 part of clean water). Make only a mixture that you'll use within the 15 minutes. 2- The surface should be in SSD condition before applying KrystolWaterstop Grout, which means that the pores are filled with water but there is no water on the surface of the concrete. Pre-soak the surface with water, and then use a sponge to remove the water.
- Use KrystolWaterstop Grout to fill empty flushes to the surface. To put the material tightly into the depth, use a rod when it is necessary.

Step 4:

- Curing Beware from rapid drying and keep the repair moisten for it to achieve its complete development, that's why cover it with a plastic sheet or something like that. After it is completely hardened sprinkle some water on it to keep it moisten for 48 hours.

TOOLS & MATERIALS

Krystol Plug

KrystolWaterstop Grout or Krystol Bari-Cote

Clean water source

Mixing bucket

Margin trowel

Chipping hammer with 25 mm (1 in.) square chisel blade)