

POLYURETHANE GROUTING WITH CYH-500



CYH 500:

CYH -500 is a hydrophobic grout based on polyurethane. Its Single component product has capability to free flow and penetrate completely into the leakage crack area.

Materials Required:



CYH500–Single Component Hydrophobic type PU



CY-1000- High pressure Grouting Injection



Injection packer

During waterproofing work:
Surface Cleaning

Surface Preparation (making surface free from dust, dirt and any another unwanted material by using the wire brush or grinder).

Analyzing the leakage zone, Sometimes the concrete surface is hidden under a surface of mud/sludge deposits left from long-term water leakage.

Drill Injection Holes

In order to inject the resin into the crack it is necessary to install injection ports, also called mechanical packers.

Make a hole with the help of drilling machine and 10mm diameter drill bit and drill the concrete layer.

The depth of the drill hole intersecting the crack should be somewhere close to the center of structure.



Insert Injection Packers

Place packers in the drilled hole, at that the top of the rubber sleeve is below the concrete surface. If the packer cannot be pushed into the hole, tap it in. Tighten the packer with a wrench as tight as necessary.(usually 8mm T-Spanner)

HORIZONTAL: Make sure all the packers should be installed inclined direction with a regular interval along the length on both side of the crack or leak.

VERTICAL: whereas in vertical packers should inclined and also it should be from the top part of the leak or crack.

PU Injection

Supply the Polyurethane-Resin CYH 500 or equivalent in the jar and stir well.

Fix the gun on the packers and start grouting slowly in an interval of 20-30sec/pump until the polyurethane react with water and become foam till that grout slowly.

Thus it ensures the resin to get react with water to form a hydrophobic foam, which will seal all the cracks/porous in the concrete and stop the leakages effectively.

Allowing it to cure and analysis for two days.

If leak stopped break the top part of the peckers and sealed with Epoxy putty.



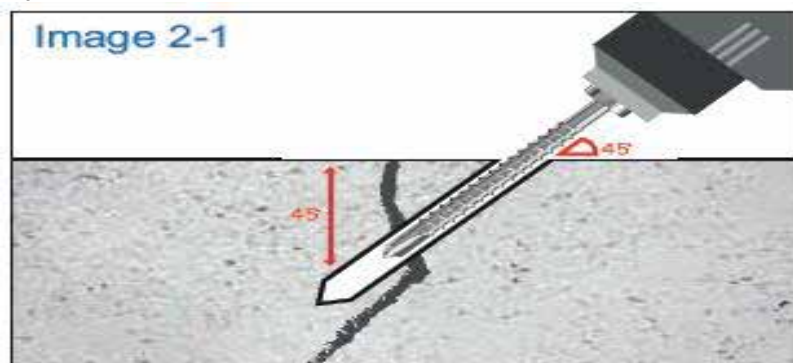
PICTORIAL PRESENTATION

Step1:



1. Check crack area and Clean up the surface with wire brush or grinder.

Step2:



Step3:



Step4:



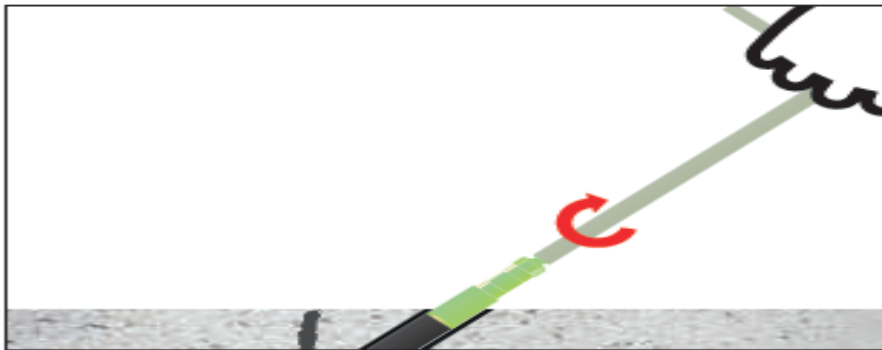
2. Drill holes near cracks using hammer drill, with 45° angle from surface as image 2-1. To prevent that packers don't penetrate through a crack as image 2-2, hole positions must be zigzag as image 2-3, and also make hole distances with every 15~20cm.

Step5:



3. Insert packers into the drilled holes.

Step6:



4. Fasten packers tightly using T-wrench.

Step7:



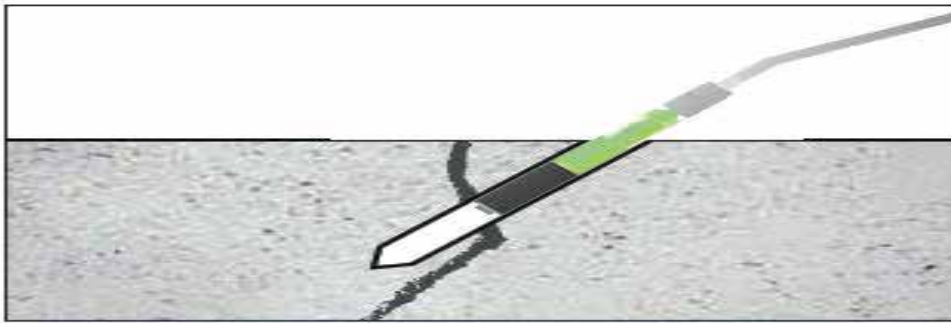
5. Connect the hose to the piston.

Step8:



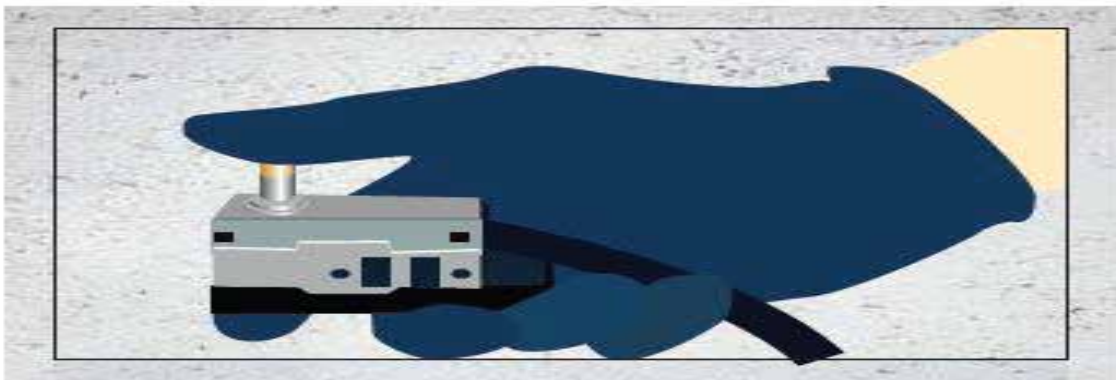
6. Pour the Resin to the plastic bottle.

Step9:



7. Connect the grease coupler with the installed packer. (Inject first at low area, and then go to upper area. Down Up)

Step10:

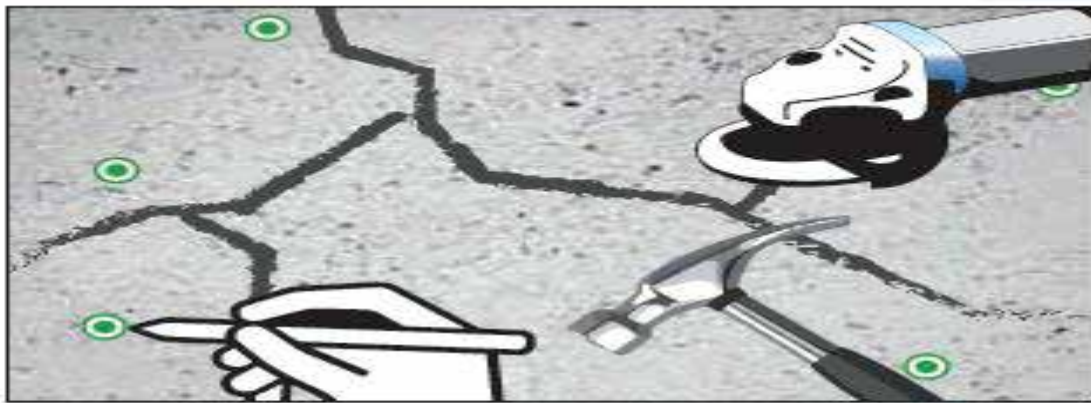


8. Push the switch for running machine, and inject PU foam or Epoxy resin into a hole. Start with low pressure, and increase pressure. When PU foam or Epoxy flows out from the cracks, stop injection, and move to another packer, and start injection again.

Step11:



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SOLUTION



9. After finishing injection work, remove packers by hitting packers using a hammer. Clean the surface using a scraper or a grinder, and if needed, coat with sealing materials.

-----END OF METHODOLOGY-----