

Crack Injection (Chemical Grouting)

Seal Cracks in Walls, Slab on Grade & Elevated Slabs

I Procedure

- A. Clean debris from crack surface
- B. Apply surface seal
- C. Drill 5/8 inch holes @ 45 degree angle to intersect crack at mid-slab or mid wall
- D. Set Mizer injectors in drilled holes
- E. Flush cracks with water via Mizer nozzles
- F. Inject Stratathane Resin
- G. Remove injectors / clean area of injection / seal 5/8 inch holes

II Process Narrative

Drill 5/8 inch holes next to the crack at a 45 degree angle to the surface, with the holes intersecting the crack near the center of the slab. This will result in the depth of the holes approximately one half the thickness of the slab. The Injection ports will be typically spaced at approximately one half of the slab thickness. Based on this initial port spacing, the crew must monitor the grout flow and adjust port distance and sequence as needed to obtain port to port flow.

After drilling, tap a Mizer Injector into each hole and tighten with a socket. Most cracks (especially dry ones) should be flushed with water prior to injection to remove debris and improve penetration. Start the flushing process at the narrowest end of the crack. After the flush process is complete, start the grouting process while the cracks are wet. As the grout begins to flow, watch for resin escaping from the crack. If the resin flows too fast from the crack, a pause will usually allow the reaction to initiate. Resin will react with the flush water. Under ordinary conditions, water is first displaced from the crack by the resin, followed by foamy resin and ultimately pure resin. Continue pumping until pure resin flows port to port from one injector to the next until the crack is completely filled.

Tight cracks may necessitate pre-heating of the Stratathane Resin to facilitate resin flow. If pump pressure builds abnormally high, tapping on the concrete with a hammer usually allows the resin to pulse through. If pre-heating the resin and vibrating the concrete with a hammer is unsuccessful for full port to port flow, intermediate holes / injection ports may have to be installed.