SUGGESTED PROCEDURE FOR EPOXY CRACK INJECTION USING CARTRIDGES

SURFACE PREPARATION

Concrete to be injected with epoxy must be clean, dry and structurally sound. Use a wire brush or a wire wheel on a grinder to mechanically clean and open the face of the crack to be injected. Ensure that there is no dust or debris left behind. If the crack is narrow at the surface of the concrete, it is common practice to drill a small pilot hole to create a “freeway” for the epoxy to travel into the crack.

SURFACE PORT INSTALLATION

Surface ports are an economical and quick way to introduce epoxy into a crack without having to drill numerous ports or packers into the concrete. The surface ports are mounted to the face of the crack using a fast setting paste epoxy (DURAL FAST SET GEL). The opening in the base of these surface ports is centered over the crack, or the pilot holes that have been created. The rule of thumb on spacing surface ports is based on the thickness of the concrete that is to be injected. Typically, the ports are spaced apart as far as the concrete is thick (for example: 8” (20 cm) thick wall, space the ports 8” (20 cm) apart).

CAP SEALING

Once the surface ports have been set, “butter” the remaining face of the crack with the same fast setting paste epoxy (DURAL FAST SET GEL). This can be done with a spatula or a margin trowel. Once completed, the only way into and out of the crack is directly through the ports. Wait until the paste epoxy has fully hardened before injecting. You don’t want to run the risk of blowing out your seal, even if you are using hand tools to inject.

CRACK INJECTION

Starting with the lowest point of the crack, place the tip of the static mixing nozzle of the low viscosity epoxy cartridge (DURAL FAST SET LV) into the surface point and use constant, steady pressure on the hand dispensing tool to inject the epoxy through the port, into the crack. Continue to slowly inject material into the port until the low viscosity epoxy starts to emerge from the next port directly above. Remove the mixing nozzle from the first port, place the cap on the port, and insert the mixing nozzle into the second surface port, from which the epoxy has just emerged. Continue moving up the crack until epoxy emerges from the surface port located at the top of the crack. By this time, you should have a feel for how much epoxy the crack is taking. Inject a small amount of epoxy into the top port to insure the crack is completely filled to the top. Cap the last port and allow sufficient time for the epoxy to cure inside of the concrete.

COMPLETION

After allowing the epoxy to cure inside of the crack, the surface ports can now be knocked off with a hammer, or ground off with a grinder and abrasive disk. The paste epoxy that was used to seal the crack can now be ground flush with the surface of the concrete. The repair is now made! It can be left as is, or an aesthetically pleasing treatment can be applied over the repair area.