EPOXY INJECTION FOR CONCRETE AND REPAIR

Epoxy injection for Concrete Crack Repair in foundations, basements, beams, columns, slabs, walls and other concrete structures

Injection of epoxies under pressure may be used to bond the cracks having greater than or equal to 0.05mm opening. This method is not applicable if the crack is active, the cracks are large in number, or when the water leakage cannot be controlled. If the cause of the cracking has not been corrected, it will reoccur near the original crack. Extreme caution must be exercised when injecting cracks that are not visible on all surfaces.

Member without increasing its strength.

The epoxy tensile bond to the concrete substrate is stronger than the concrete's tensile strength. Future cracking may occur at the same load as that of the original uncracked member but at different locations. Strengthening is provided by installing additional reinforcement across the failure plane in combination with the resin injection.

Frequently, internal or external reinforcement is installed in combination with the epoxy injection for strengthening and restoration. Crack injection can be successfully performed on cracks as narrow as 0.013 mm in width with general epoxy injection resins. Cracks with less width can be injected with epoxy or other polymer systems having a low viscosity.

Install injection ports: Surface Ports (short rigid-plastic tubes with a flat base) serve as handy entryways for getting the repair material into the crack.

Seal the surface: Use an epoxy adhesive (such as Rhino Carbon Fiber's Fast Curing Epoxy) to seal over the surface ports and exposed cracks.

Inject the crack: Begin injecting at the lowest port on the wall and continue until the epoxy begins to the port above it.

Remove the ports: Allow 24 to 48 hours at room temperature for the epoxy or polyurethane to cure and penetrate into the cracks.