E. Crack injection shall be performed with one or more of the following resins as approved by the Engineer.

1. Foaming agent to stop water leakage.
2. Epoxy resins for structural repairs.
3. Polyurethane resin.
4. Vinyl ester resin.

F. All injections shall be conducted by drilling holes at approximately 45º to the surface in order to intersect the crack at the centre of the member.

G. Crack injection shall typically start at the bottom of vertical surfaces and shall continue upwards as resin is seen to exit indicator holes.

H. The above shall not relieve the Contractor of his obligation of good achievement of the work.

13.3.5 Crack Filling (Surface)

A. The Contractor shall treat the cracks under dry condition by opening and filling with epoxy filler.

B. Cracks shall be ground out and filled at the surface as directed by the Engineer.

1. Grinding shall be in the form of a “V” notch 10 mm wide.
2. “V” shall be blown clean of all dust and filled to the surface with an approved epoxy filler.
3. Indicator holes may be drilled through the filler as necessary to monitor crack injection activities.

13.3.6 Repair of the Deteriorated / Contaminated Existing Concrete

A. The extent of removal in any concrete shall be approved by the Engineer, after the Contractor has removed the deteriorated / contaminated concrete.

1. As a guide, the defective/contaminated concrete area shall be removed till the exposure of a sound non-contaminated concrete and rebar (10cm beyond the corroded length of the rebar).
2. As a guide, all loose and porous concrete shall be removed.

B. In case the concrete at any area shall be removed to a certain depth below the ground level as extent of repair / contamination then The Contractor shall also carry out the following works: