Permatech Crack Injection System—Capsules

36 Dellamarta Road, WANGARA, WA 6065

Ph: (08) 9309 1777

Notes on Mixing Epoxies

- Mix it in the specified ratio, and use measuring jugs and buckets to ensure minimal margin of error
- Incorporate each part thoroughly with the other
- Take care not to aerate during mixing
- Ensure clean and accurate placement

Equipment Required:

- Injection capsules (allow 4 per metre)
- Measuring cups
 & stirrers
- Megapoxy PM (or PF if a fast cure is required)
- Megapoxy HX
- Gloves, Full Face Safety Mask, Coveralls
- Grinder with grinding and sanding discs

The crack injection system is used for the economical and permanent repair of cracks in concrete structures.

Repair of concrete cracks without the ability to check the extent of the penetration of the remedial material presents significant challenges. The system described below is characterised by the use of **low viscosity material**, injected under **low pressure** and **low speed**, allowing remedial materials to penetrate into minute cracks. Using Megapoxy HX cracks nominally 0.2 -2mm in width can be filled.

Injection Capsule



Capsule capacity : 35cc •Min Pressure : 1.5kgf/cm2 •Weight : 38.5 g •Port Dia :ø48 •Max. Length : 200mm •Surface Adhesive Strength: •more than 6kgf/cm2 •Max. pressure : 2.7kgf/cm2 •Min. Length : 140mm

Method:

- 1. Clean the area where the adhesive is to be applied with a diamond cup wheel to remove surface laitance.
- 2. Fix the capsule base to the concrete at 300mm or less centres using Megapoxy PM or Megapoxy PF.
- 3. Seal the crack on both sides with Megapoxy PM or PF. Work the paste into the surface to ensure a good bond and prevent pinholes. Allow to cure before proceeding.
- 4. Mix Megapoxy HX thoroughly in correct proportions and draw the epoxy up into the syringe.
- 5. If you are injecting into a wall, start at the lowest capsule base. In all cases, work in a consecutive manner, from one end of the crack to the other. Insert the filled syringe into the capsule base.
- 6. Inject the syringe and pull the rubber bands over the base and the wings of the syringe to place the epoxy under pressure until epoxy appears at the next capsule base along the crack. If no epoxy is appearing at the next capsule base, either you will need to inject one or more syringefuls into the current capsule base, or the void you are injecting into is contained/finite (if it is the latter you will need to address this issue before continuing).
 - 7. Move to the next capsule base and repeat the procedure.
 - 8. Repeat the treatment going back to each syringe to retain the pressure on the crack and ensure sufficient resin is injected.
 - 9. After 24 hours, grind off the capsules and crack sealing compound to leave a smooth surface if required.