

# Megapoxy

## Crack Injection System

### DESCRIPTION

The Megapoxy crack repair system consists of a low viscosity two part epoxy crack injection resin complete with injection balloons (air release valves) and connecting hoses. This system has everything required to repair fine cracks in concrete structures where a permanent, high strength repair is required. Low viscosity resins Megapoxy H and HX are both an ideal crack repair solution. This product will penetrate by capillary action into fine cracks down to 0.1mm and will reinstate the structural integrity of fine cracks and the damaged concrete.

### INJECTION SYSTEM ADVANTAGES

**Injection Balloon with Clear base:** The Crack Injection balloon has a clear base which allows you to see the flow of the injecting resin and allows correct placement over the cracked structure. The balloon protrudes through the clear base to prevent adhesive blocking the balloon aperture during adhering/placement.

**Latex hose:** Under pressure the balloon inflates out approx. 20mm to allow low pressure injection on the crack (up to approx. 20psi)

**Tap connection:** Provides a leakage free connection to a modified grease gun as well as a secure closure of the Injection balloon (latex line) after expansion/inflation. Allows taps further along the cracked structure to be left open if desired which helps remove air entrapment from the crack as resin moves through the crack repair.

**The Injection Gun:** For injecting the liquid resin into the Injection Balloon, we have a modified grease gun. A connector is fitted to the front of the gun to provide leakage free connection to the Injection Balloon, and a rubber end cap is fitted to the barrel to allow for easy repeated filling of the Injection Gun. The rubber end cap is removed and the pre-mixed resin is poured into the barrel. The rubber cap is replaced and the gun is ready for use. Held in an inverted position, the resin flows to the pump head for delivery to the Injection Balloon. This system provides an economical tool which may be easily cleaned after use.

### EQUIPMENT REQUIRED FOR INJECTION REPAIR

- 1) Grinder with diamond grinding wheel and crack chasing blade
- 2) Efficient mixing paddle
- 3) Spatulas and flat hard mixing board
- 4) Modified grease gun and injection hose assembly
- 5) Personal protection equipment



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## SURFACE PREPARATION

All surfaces must be structurally sound and all previous coatings, adhesives, efflorescence or laitance should be removed by chipping, abrasive blast cleaning, high pressure water washing, mechanical scrubbing or any other suitable means. All surfaces must be cleaned free from dirt, grease, oil or other surface contaminants. Ensure the surface is dry before application begins.

## INSTALLATION PROCEDURE

- 1) Ensure the area surrounding the crack is prepared sufficiently as above. If necessary grind either side of the crack using zec wheel or similar, remove dust loose debris and seal with Megapoxy PM or Megapoxy PF against leakage of the injecting resin.
- 2) Fix the base of the Injection Balloon (recommend the balloons are installed with the TAP in the open position) to the concrete at suitable intervals using Megapoxy PF Rapid Cure Gap Filling Paste Adhesive at 25cm apart (suggested as a guide). If longer work times are required to seal the crack and adhere the Injection Balloon, use Megapoxy PM Medium Cure Gap Filling Paste Adhesive.
- 3) Seal the crack between all Injection Balloons using the Megapoxy PF or Megapoxy PM. Where possible seal the rear of the crack using Megapoxy PF or Megapoxy PM.
- 4) Mix Megapoxy H or Megapoxy HX using the instructions found in our Technical Bulletin. Once the product is correctly measured and thoroughly mixed, pour into the back of Injection Gun replacing the rubber cap to avoid spills.
- 5) Inject the lowest Injection Balloon first before moving to the next Injection Balloon and repeat this procedure until all Balloons are filled.
- 6) Repeat the treatment on each Injection Balloon to retain the inflation on the latex balloon to ensure sufficient resin is injected into the crack.
- 7) Minimum 12 hours after injection, grind off the Injection Balloons plus any sealing product between Balloons until a smooth surface is achieved.

## AVAILABILITY

Megapoxy Injection Guns are available for individual purchase, Balloons are available in bags of 20. Megapoxy H and Megapoxy HX are both available in 4 litre and 20 litre kits.

## CLEANING UP

To keep mixing implements and working tools clean use Megapoxy Thinners. Use disposable rubber gloves to protect hands and maintain proper industrial hygiene. For further details refer to Bulletin No. 100.





Epoxy Crack Injection Repair of Concrete Carpark



Epoxy Crack Injection of Concrete Boat



Epoxy Crack Injection of M4 Bridge Pier

