TECHNICAL DATA

Crack Repair Epoxy Sealer

EPIREZ® 123

Description

Crack Repair Epoxy Sealer (123) is a high strength epoxy injection grout offering low mixed viscosity and fast hardening to produce a bonding matrix exhibiting excellent adhesion and high compressive and tensile strength.

Crack Repair Epoxy Sealer (123) is ideal for pressure injected structural repair of cracked and damaged concrete. When **Crack Repair Epoxy Sealer (123)** hardens it adheres tenaciously to all concrete elements and the complete structure is restored to its original monolithic condition.

Crack Repair Epoxy Sealer (123) will penetrate into some cracks by capillary action, or, in more critical applications, may be applied by pressure injection to cracks down to 0.2mm.

Crack Repair Epoxy Sealer (123) will also bond to damp surfaces.

Areas of application

- Repair of spalled concrete
- Bridge decks
- Crack injection
- Columns
- Fine gap grouting
- Tunnels
- Stopping leaks in concrete
- Concrete structures

Features

- Low viscosity
- Deep penetration
- Bonds to damp surfaces
- Solvent free
- High strength

Last Modified September 2009

General Properties

Appearance of Hardener	:	Thin amber liquid
Appearance of Compound	:	Amber liquid
Mixing Proportions by Weight or Volume	:	1 Hardener to 2 Compound
Solids Content	:	100%
Work Time	:	30 minutes at 25ºC
Cure Time	:	24 hours at 25ºC
Initial Mixed Viscosity	:	0.3 Pa.s
Density	:	1.08 g/cm^3
Adhesive Bond Strength, Concrete	:	2.7 MPa (concrete failure)
Water Permeability	:	4 x 10^{-17} m/s
Resistance to Chloride ion Penetration	:	Good

Estimating Data

1 litre Crack Repair Epoxy Sealer = 4 – 8 m^2

Application Directions

Note:

All injection projects are different and as such the systems below should be used as a guide. Specific information is available from the ITW Polymers & Fluids Technical Department.

Pressure Injected Structural Repair

Smaller Projects

Vacuum or brush the crack clean along its entire length and if possible, on both sides of the structure. Ensure foreign matter is removed from the crack.

Drill 12mm diameter holes intersecting the plane of the crack at 150mm centres to a depth of 35-40mm. If a hole does not intersect the plane, leave it and drill a new hole immediately adjacent. Vacuum or brush the holes and crack clean.

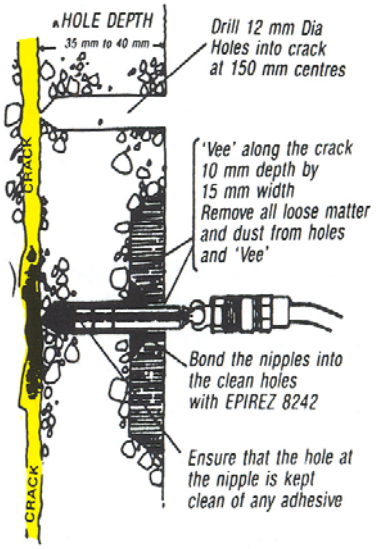
"Vee" out the crack along its entire length to a 10mm depth and 15mm width.

Use **Epirez® Episet Structural Adhesive (8242)** to bond Injection Nipples into the holes and to seal the crack and any rejected holes. Take care not to block exit ends of nipples with the adhesive. Allow adhesive to harden overnight. If faster hardening is required use **Epirez® Episet Anchor Adhesive**.

Loosen "heads" of all nipples except the lowest to allow air to bleed off.

Mix **Crack Repair Epoxy Sealer (123)** thoroughly using a low speed (400rpm) stirrer fitted to a power tool. Take care to avoid air entrapment in the mix. Mix only enough material that can be used within the recommended work time.

Load mixed **Crack Repair Epoxy Sealer (123)** into a High Pressure Gun. Attach the gun to the lowest nipple and pump until **Crack Repair Epoxy Sealer (123)** fills the crack and runs out of the next highest nipple. Tighten that nipple "head" and repeat as necessary until **Crack Repair Epoxy Sealer (123)** has filled the crack.



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Larger Projects

Effective injection of fine cracks over larger areas requires higher pressure and longer duration than smaller projects.

In situations when the depth of epoxy penetration is specified it is recommended that a trial section of crack be injected then cored to ascertain that the specification requirements can be met.

Cleaning

Clean tools and equipment before hardening commences by washing with **Epirez® Clean Up Solvent**. Do not use for cleaning hands or mixing with product.

Limitations

Crack Repair Epoxy Sealer (123) should not be applied at temperatures below 10^0C.

Storage and Shelf Life

Store in dry conditions between 10^0C and 30^0C, away from sources of heat and naked flames. Protect from frost. When stored in original sealed containers the minimum shelf life is 2 years.

Packaging

Crack Repair Epoxy Sealer (123) is available in 300ml and 1.5 litre packs. Each pack contains Hardener and Compound in the correct proportion for use.

Ordering Information:

300 ml	#E901238
1.5 Ltr	#E901233

Note

The figures quoted for work time, cure time and performance are not definitive. They are dependent on job site conditions and will vary accordingly. In all cases we endeavour to provide typical figures for use as a guide.

Health & Safety Information

The product is hazardous. A Material Safety Data Sheet is available from the ITW Polymers & Fluids Technical Department upon request or available on our website www.epirez.com.au .

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