Dr. Fixit Epoxy Injection Grout

TWO-PART EPOXY BASED MOISTURE INSENSITIVE INJECTION GROUT

Description

Dr. Fixit Epoxy Injection Grout is a solvent less crack injection material composed of very low viscous liquid epoxy resin & amine hardener system. It is used to seal & inject cracks in concrete floors, walls & structures because it provides deep penetration, shrink free solid mass, strong bonding inside the cracks and excellent resistance to honey combing & chemicals.

Standard Compliance / Specification Meets the requirement of BS 6319 & ASTM C 881 standards.

Typical Application

- Permanent bonding solution for concrete cracks.
- Repair of crack concrete areas in floors, walls, tanks & sea walls.
- Injection in to cracks & honey combing in concrete & masonry.

Features

- **Speciality** - Specially formulated for Middle East climatic conditions.
- **Bonding** – Seals & bonds strongly with cracks of concrete, floors & walls and provides smooth working surface & avoids damage of the concrete substrate.
- **Penetration** – Low viscosity helps in deep penetration into the cracks. Thus seals the cracks permanently.
- **Repairs** – Because of low viscosity, strong bonding, higher strength development than parent concrete, shrink free nature & waterproofing characteristics, makes it suitable for repairs of heavy concrete structures like bridges, dams, buildings, etc.
- **Resistant** – Resistance to aggressive chemicals, corrosion, abrasion & dust formation.
- **Moisture Insensitive** – Excellent adhesion to cement substrate even under salt water & moisture.

Packing

1 & 3 Kg

Method of Application

1 SURFACE PREPARATION

- Surface must be strong, dry, clean & free from dust, oil, grease, curing compounds, coatings & other loose materials. For better performance sand blasting, high pressure water jet cleaning, hydrochloric acid etching, mechanical grinding (by pneumatic tools) & wire brushing may be done. In case of acid etching, wash the surface till neutralization.
- Open the cracks & clean by blow of oil free air to ensure complete removal of dust & loose particles.

2 PLACING /FIXING OF NOZZLES

- Drill holes into the crack of diameter higher than the grouting nipples up to a depth of at lease 1/3rd of structural member.
- Insert injection nipples / nozzles in to the drill holes at the intervals along the length of etch crack. The distance between each nipple will depend on width & depth of crack. Spacing should be close enough to ensure that the resin penetrates along the cracks till the next point of injection.
- The surface of the cracks in between the nipples should be sealed with Dr. Fixit concretes about 30-40 mm wide & 2-3 mm thick band. Incase the crack is through & through of a wall or slab, cracks at both the sides must be sealed in similar fashion. First fix the nozzles in the front portion crack, then fix the nozzles at midway points of the front nozzles. This ensures complete filling of grout into crack & surrounding areas.
- The repaired work shall be allowed to cure for atleast 8 hrs at 35^{0}C, at low temperature of 5-12^{0}C curing time is extended and the applicator must ensure that the surface sealant has adequately cured prior to continuing the work.

- One end of the injection hose shall be attached to the lowest nipple on vertical cracks or to either end of the horizontal cracks. Alternative methods of resin injection are currently in use, they include the system where injection nipples are bonded to the substrate.

3 MIXING

Thoroughly mix the entire hardener and base resin contents until the liquids become clear.

4 INJECTION

- Dr. Fixit Epoxy Injection Grout should be used with standard injection equipment having closed containers. The injection pressure should be at least 0.2 n/mm^2 (2 bar).
- Only mix sufficient resin that can be used within the pot life of the materials.
- After completion of the injection work, the injection system shall be allowed to cure for 24 hours and shall be left undisturbed for this time

Precautions & Limitations

- Use the material within the pot life expiry period.
- Mix entire pack quantity.
- Do not dilute the material with solvents to reduce the viscosity.
- Ensure that nozzles are fixed properly without any air leakage.

Technical Information

PROPERTIES	SPECIFICATION	RESULTS
Mixing Ratio - Base : Hardener (by weight)		100 : 60
Pot life @ 30°C & 65% RH, minutes		80-150
Sp. Gravity @ 30°C		1.1 ± 0.05
Initial setting time, Hrs		6
Compressive strength, N/mm^2	BS:6319 : part 2	> 40 - 1 day > 70 - 7 days
Flexural strength, N/mm^2	BS:6319 : part 3	> 30 - 7 days
Tensile strength, N/mm^2	BS:6319 : part 7	> 15 - 7 days
Water permeability, %		Nil
Bond strength, kN	ASTM : C 881	Concrete Failure
Viscosity on brookefield RVT Model @ 30°C, CPS		200 - 400

Yield

Fresh mix density 1.02 kg/ ltr.

Shelf Life

Shelf life is 24 months from the date of manufacturing in unopened condition. Store at cool & dry place away from sunlight & naked flames.

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Dr. Fixit brings you the widest range of Construction Chemicals

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