Dr. Fixit Epoxy Injection Grout

TWO COMPONENT LOW VISCUS EPOXY BASED MOISTURE INSENSITIVE INJECTION GROUT

Description

Dr. Fixit Epoxy Injection Grout is two component, low viscus and solvent free suitable for grouting application as well as to seal structural cracks in concrete
Dr. Fixit Epoxy Injection Grout 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.

Areas of 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 & Benefits

- **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.
- **Excellent durability –** High mechanical strength to ensure long working life.

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 approximately 40 to 50 degree angle towards the crack and ensure the drill diameter higher than the grouting packers up to the depth of at least 1/3rd of structural member.
- Insert injection packers into the drill holes at the intervals along the length of each crack. The nozzle should space to each other between 150 to 500mm intervals depending upon the crack width, depth and pressure of water. ensure while tightening the packers, make sure that the injection hose rests comfortably on the zerk or button head fittings.
- 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. In case 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 at least 8 hrs at 35°C, at low temperature of 5-12°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).
- The injection pressure depends on the nature of the structure and the hydrostatic conditions. In case of crack injections, the injection procedure must be continued until the crack is filled completely and the resin can be seen emerging from the adjacent packers.
- 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
Sp. Gravity @ 30°C	1.02 to 1.08	(1.062)
Pot life @ 300C & 65% RH, minutes	Min 50	80-150
Initial setting time, Hrs		<24 Hrs
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, %	ASTM : C 881	(max 2%)
Bond strength, kN	ASTM D 4541	Concrete Failure
Viscosity on brookefield RVT Model @ 30°C, Poise		2 to 6

Yield

Fresh mix density 1.02 kg/ ltr.

Packaging

1 & 3 Kg

Shelf Life & Storage

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

Other Products Categories available

Dr. Fixit brings you the widest range of Construction Chemicals

Pidilite Industries Limited
Construction Chemicals Division
Ramkrishna Mandir Road, Post Box No. 17411
Andheri (E) Mumbai 400059 INDIA
Tel +91-22-2835 7000 • Fax +91-22-2835 7008
www.drfixit.co.in • info@drfixit.co.in
Dr. Fixit Advice Centre (Toll Free No.) 1800 209 5504

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