K2 JAPOXY IG

Solvent Free Low Viscosity Injection Epoxy Grout

Description:

K2 JAPOXY IG is a two part solvent free low viscosity injection epoxy grout. 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 honeycombing, water, salt & Chemicals ingress thereby obviating freeze-thaw damage and rebar corrosion.

Area of Application:

- Permanent bonding solution for concrete cracks.
- Repairs of crack concrete areas in floors, wall, tank & sea walls.
- Injection into crack & honeycombing of concrete, brickwork and masonry.
- Base plate grouting with narrow gaps of < 10mm.

Benefits:

- Ultra High Strength.
- Seals & bonds strongly with cracks of concrete, floors & walls and provides smooth working.
- Low viscosity helps in deep penetration into the cracks, thus seal the cracks permanently.
- Resistance to oil, grease, water penetration, abrasion, weathering and chemical.
- Easy to apply.
- Low viscosity, strong bonding, and higher strength development than parent concrete, shrink free nature & waterproofing characteristics, makes it suitable for repairs of heavy concrete structures like bridges, dams, building etc.
- Resistance to aggressive chemicals, corrosion, abrasion & dust formation.
- Excellent adhesion to cement substrates even under salt water & moisture.

Technical Properties:

Properties	Results
Temperature during Application	3^0 C TO 45^0C
Pot Life At 30ºC	60 – 80 Minutes
Initial setting time	6 hours
Compressive Strengths –7 days	750 kg/ cm^2
Adhesion to Concrete	44 kg/cm^2 (concrete failure)
Tensile Strength – 7 days	100 kg/ cm^2
Water Permeability	Nil
Mix Density	1060 kg/ m^3

Application Instruction:

SURFACE PREPARATION

- Surface must be strong, dry, clean & free from dust, oil, grease, curing compounds, coatings & other loose materials. For better performance sandblasting, 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.

PLACING/FIXING OF NOZZLES

- Drill holes into the crack of diameter higher than the grouting nipples up to a depth of at least 1/3rd of a structural member.
- Insert injection nipples / nozzles into the drill holes at the intervals along the length of each crack. The distance between each nipple will depend on width & depth of the 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 K2 MICROCONCRETE Repair mortars 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 sealing has adequately cured prior to continuing the work.
- One end of the injection hose shall be attached to the lower 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.

MIXING PROCESS

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

INJECTION

- K2 JAPOXY IG should be used with standard injection equipment having closed containers. The injection pressure should be at least 0.2 N/mm² (2 bar).
- Mix only 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. Full mechanical properties will be achieved following 7 days curing at 30o C. At lower temperatures curing times will be extended.

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.

Cleaning:

Tools and mixers should be cleaned with suitable aromatic solvent or thinner immediately after use.

Coverage:

The coverage of K2 JAPOXY IG is very much dependent on the depth and extent of cracks within the substrate.

Packing:

- K2 JAPOXY IG is available in 1 KG Pack.
- Pack Contains: Part A - Base (0.670 kg) & Part B – Hardener (0.330 kg).

Shelf Life and Storage:

K2 JAPOXY IG has a shelf life of 12 months in unopened packs, if kept in a dry store. And protect from direct sunlight.

Technical Support:

The company provides a technical service supported by the team of specialist applicators in the industry.

Important Note:

KONKEM Industries Private Ltd products are guaranteed against defective materials and manufacture and are sold subject to its standard terms and conditions of sale, copies of which may be obtained on request. Whilst KONKEM Industries ltd endeavors to ensure that any advice, recommendation specification or information it may give is accurate and correct, it cannot, because it has no direct or continuous control over where or how its products are applied, accept any liability either directly or indirectly arising from the use of its products whether or not in accordance with any advice, specification, recommendation or information given by it or its applicators.

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