Megapoxy

HT

Hydrophilic Epoxy Gel Adhesive

Technical Data Sheet

DESCRIPTION

Megapoxy HT is a 100% solids, resin based, solvent-free, hydrophilic epoxy gel adhesive. Megapoxy HT is resistant to hydrogen sulphide that may be present in pipes and plants used for treatment of sewage. Megapoxy HT has excellent static and dynamic mechanical properties, and can be used with the fine aggregates to make high strength epoxy mortar.

It can be used for wet to dry concrete adhesive. Repairs of cracked concrete, underwater and splashzone repairs. Megapoxy HT is volatile organic compounds free (Nil V.O.C.)

RECOMMENDED APPLICATIONS

- New to Old Concrete Bonding
- Concrete Crack Repair
- Concrete Repairs
- Steel Anchoring
- Coating
- Floor Repairs
- Epoxy Mortars
- Underwater Repairs

PROPERTIES

Mixing Ratio by Volume	3 Part A to 1 Part B
Work Time at 25°C:	30 minutes at 25°C
Minimum Cure Time at 15°C	48 hours
Minimum Cure Time at 25°C	24 hours
Minimum Cure Time at 35°	12 hours
Minimum Application Temperature	10°C
S.G. Part A at 25°C	1.00 - 1.10
S.G. Part B at 25°C	0.97 – 0.99
Mixed S.G. at 25°C	1.03
Colour Part A	N35 Grey
Colour Part B	Clear
Appearance Mixed	N35 Grey

CURED PROPERTIES

Compressive Strength - ASTM D695	100Mpa
Bond Strength Concrete - ASTM D4541	>3Mpa
Tensile Bond Strength Steel - ASTM D897	20Mpa
Modulus of Elasticity - ASTM D695	11Gpa
Flexural Strength - ASTM D790	40Mpa
Tensile Strength - ASTM D638	40Mpa
Tensile Shear Strength - ASTM D1002	13Mpa
New to Old Concrete Bonding: Slant Shear Test:	36MPa
Hardness - Shore D - ASTM D2240-00	70 minimum

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CHARACTERISTICS CONTINUED	• VOC Free • Hydrophilic • Thin Liquid • Mixes easily by hand • Very high strength permanent bonds • Excellent tensile and compressive strengths, superior to concrete • Excellent chemical resistance
SURFACE PREPARATION	**Concrete** Concrete should be free from grease and oil. If necessary, clean with industrial heavy duty degreaser. When clean, remove surface laitance. This is best done by mechanical abrasion such as scabbling, grit blasting or grinding. If this is not possible acid etching must be carried out. Mix concentrated hydrochloric acid with equal volume of water and spread at the rate of 0.5 litre per square meter of concrete surface. Allow to react for about 10 minutes and wash the area thoroughly and scrub with a stiff bristled broom to remove loose sand. Allow to dry for 24 hours. For maximum adhesion the concrete should be surface dry. **Metal Surfaces** Metals should be grit blasted to AS CK 9.4 - 1964 Class 3 finish. If this is not possible, mechanically abrade the surface to a clean, bright metal surface. Once this abrasion is complete, degrease the surface by flooding with an industrial grade degreaser. Wire brushing is not entirely satisfactory and gives minimal adhesion only. **Coated Surfaces** It is recommend to remove all coatings prior to bonding, bonding to coated surfaces will give inferior bond strengths compared to bonding directly to a prepared substrate. Concrete: The surface may be either flame-cleaned, or mechanically treated with a scutching tool, to remove all traces of paint. Complete the preparation by diamond grinding or scabbling. Metals: Steps should be taken to remove all paint and/or galvanizing. Good quality paint stripper should be used, followed by grit blasting or grinding to a bright metal finish.
STEEL ANCHORING	For anchoring steel into concrete, drill a hole approximately 1.5 diameters of the steel to be grouted. Any dust or foreign matter must be blown out with oil-free, dry compressed air. Set the steel into the hole and pour the mixed Megapoxy H from one side to allow air to escape. Allow to cure for 24 hours. For grouting of steel horizontally use Megapoxy HT, grouting steel vertically, Megapoxy H can be used. The steel should be grit blasted and degreased to achieve good bond.
IMPORTANT INFORMATION	It is essential that the correct mixing ratio be used and that the Part A and Part B are thoroughly mixed together before use. Inaccuracies and poor mixing will result in lower physical properties of the cured system and, if the error is sufficiently large, the system may not cure satisfactorily and discolour on ageing.

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EPOXY MORTARS AND EPOXY CONCRETE

EPOXY CONCRETE

NEW TO OLD CONCRETE ADHESIVE	Mixing Ratio by volume: 3 Parts A to 1 Part B Mix Megapoxy HT as detailed above and apply by brush, roller or airless spray to prepared old concrete at the rate of 1 to 1.5 litres per square metre. Place new concrete within 15 minutes of applying Megapoxy HT to ensure good bonding. For vertical and overhead rendering use Megapoxy HT in place of Megapoxy H.
CLEANING	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 the Megapoxy HT Safety Data Sheets.
PACKAGING	Megapoxy HT is available in 1lt, 4lt and 20lt kits. Product should be stored in cool dry store.
TECHNICAL SERVICE	All purchasers of Megapoxy Products, are encouraged to avail themselves of our Technical Service for our Megapoxy Products. The information in this Bulletin is correct at time of publication, however continual research and development is being carried out and specs may change without notice.