

MEGAPOXY P1

GAP FILLING EPOXY PASTE ADHESIVE FOR CIVIL ENGINEERING USE

MEGAPOXY P1 is a two component gap filling adhesive based on DGEBA epoxy resin and carbonate free filler. Easy to use, this product sets after mixing with excellent properties for a wide range of applications.

MEGAPOXY P1 is volatile organic compounds free (Nil V.O.C.) and is suitable for use in repairs of structures that are in contact with potable water. MEGAPOXY P1 complies with AS/NZS 4020:2005 "Testing of Products For Use In Contact with Drinking Water". Megapoxy P1 is resistant to hydrogen sulphide that may be present in pipes and plants used for treatment of sewage.

RECOMMENDED APPLICATIONS

BONDING

Precast concrete articles
Metal to metal or concrete
Grouting bolts
Natural stones
Bricks and ceramics
Bonding compressed cement sheet

FILLING & REPAIRS

Concrete pipes and tanks
Fibreglass articles
Concrete floors and stairs
Concrete column
Insitu formed concrete
Flush-filling countersunk screws in fibre cement sheet

CHARACTERISTICS

VOC Free
Simple 1 : 1 mix ratio
Creamy Texture, blend easily
No – Sag on vertical & overhead surfaces
Adhere and cures under adverse conditions(cold & damp)
Good strength retention after prolonged immersion in water
High strength permanent bonds
Excellent tensile and compressive strengths, superior to concrete
Excellent chemical resistance



CONCRETE & STEEL PROTECTION

MEGAPOXY P1 is suitable for protection of reinforcing steel where concrete cover is insufficiently thick, and to prevent corrosion Megapoxy P1 can be applied directly to steel, grit blasted to a bright metal finish.

Properly mixed and applied Megapoxy P1 is a stone solid that will retain strength permanently.

Applications to concrete necessitates surface preparation to ensure that Megapoxy P1 is bonded to sound substrate.

Experience show that's a minimum 3 mm layer of Megapoxy P1 provides protection to reinforcing steel equivalent to approximately 50 mm of concrete cover.

AVAILABILITY

MEGAPOXY P1 is available in 4 Litre & 20 Litre kits. Shelf life of unopened kits is 2 years minimum. The product should be stored in a cool, dry place.

SURFACE PREPARATION

METALS : Metals should be grit blasted to clean surface. If this is not possible, mechanically abrade to clean bright metal surface and degrease by flooding the abraded surface with Megapoxy Thinners. Wire brushing is not entirely satisfactory and gives minimal adhesion only.

CONCRETE : Concrete should be free from grease and oil. If necessary, clean with industrial heavy duty degreaser. When clean, remove surface laitence. 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 metre 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 concrete should be dry.

PAINTED SURFACES : Steps should be taken to remove all paint.
Metals : Good quality paint stripper should be used, followed by grit blasting.
Concrete : Surface may be either flame-cleaned, or mechanically treated with a scutching tool. Complete the preparation by grinding or scabbling

PROCESSING DATA

| | |
|---|--------------------------------------|
| Mixing Ratio | : 1 part "A" to 1 part "B" by volume |
| Mixing | : Mix until uniform grey |
| Usable life at 25°C | : 60 minutes |
| Minimum cure time | : 24 Hours at 25°C |
| Full cure time | : 4 Days at 25°C |
| Minimum recommended application temperature | : 10°C |

PRODUCT SPECIFICATION

| | PART "A" | PART "B" |
|-------------|-------------------|-------------------|
| Colour | White | Black |
| Consistency | Thixotropic paste | Thixotropic paste |
| Flash point | Above 130°C | Above 100°C |

MIXING PRECAUTIONS

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 aging.

TYPICAL CURED PROPERTIES

| | |
|---------------------------------------|--------------------|
| Tensile strength | : 45 MPa |
| Tensile shear strength | : 14 MPa |
| Compressive strength | : 80 MPa |
| Flexural strength | : 18 MPa |
| Modulus of elasticity | : 2,000 MPa |
| Maximum operating Temperature | : 80°C |
| Density | : 1.6 kg per litre |
| Dielectric strength 50Hz @25°C(Kv/cm) | : 190 |
| Volatile Organic Compound (V.O.C.) | : Nil – 0.00 g/l |

The Volatile Organic Compound of Megapoxy P1 has been tested according to the California South Coast Air Quality Management Rule 1168.

CLEANING UP

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 Safety data sheet.