

# MEGAPOXY P1

## GAP FILLING EPOXY PASTE ADHESIVE FOR CIVIL ENGINEERING USE

### DESCRIPTION

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 AND REPAIR

- Concrete pipes and tanks Fibreglass articles
- 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 (m<sup>2</sup>) 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 scutching tool. Complete the preparation by grinding or scabbling.

### PROCESSING DATA

Mixing Ratio	1 part resin to 1 part hardener 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"
<b>CONSISTENCY:</b>	Thixotropic paste	Thixotropic paste
<b>COLOUR:</b>	White	Black
<b>FLASH POINT:</b>	Above 200°C	Above 200°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 ageing.



### CURED PROPERTIES (TYPICAL)

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	80C
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

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.

