

Megapoxy HELLAS[®]

Technical Bulletin

MEGAPOXY PF

Issue 2, 09/2001



Rapid set epoxy paste adhesive for civil engineering applications

Summary

MEGAPOXY PF is a rapid set epoxy adhesive which sets in seven minutes and attains more than half its ultimate strength within 15 minutes of mixing. MEGAPOXY PF “hardens-as-you-hold-it” for immediate on the spot emergency repairs to tanks, pipes, machinery, concrete structures etc.

Bonding

- Precast concrete articles
- Grouting bolts
- Natural stones
- Bricks and ceramics
- Metals

Filling and repair

- Concrete pipes and tanks
- Fibreglass articles
- Concrete floors and stairs
- Concrete columns
- In situ formed concrete

Product specification

	Part A	Part B
Consistency	Thixotropic paste	Thixotropic paste
Colour	White	Black or Neutral
Flash point	>100°C	>100°C

Surface preparation

METALS

Metals should be grit blasted to AS CK 9.4 Class 3 finish. If this is not possible, mechanically abrade to clean bright metal surface and degrease by flooding the abraded surface with Megapoxy Degreaser. 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 surface dry.

PAINTED SURFACES

Steps should be taken to remove all paint.

Metals

Good quality paint stripper should be used, followed by grit blasting.

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Surface preparation (continued)	Concrete The surface may be either flame-cleaned, or mechanically treated with a scutching tool. Complete the preparation by grinding or scabbling.
Characteristics	<ul style="list-style-type: none">• Smooth and easily workable• Simple 1:1 mixing ratio• Non-sag on vertical or overhead surfaces• Sets in 7 minutes at 25°C - 90% cure within 1 hour at 25°C• Very high strength permanent bonds• Tensile and compressive strength superior to concrete• Excellent chemical resistance• Can be machined after 30 minutes cure at 25°C
Availability	MEGAPOXY PF is available in 1, 4 & 20 litre kits. Shelf life of un-opened kits is 2 years minimum. The product should be stored in a cool, dry place
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: 25 MPa Tensile shear strength: 10 MPa Flexural strength: 18 MPa Compressive strength: 65 MPa Coefficient of linear expansion (mm/mm/°C x 10⁻⁶): 40 Water absorption - ASTM D570 - 10 days at 25°C: 0.5% by weight Dielectric strength 50 HZ at 25°C (Kv/cm): 190
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.
Technical service	All purchasers of MEGAPOXY products are invited to avail themselves of our technical service on epoxy base materials. The methods and systems outlined in this bulletin are the best available at the present time, however continual research and development is being carried out and could result in change without prior notice.

Please do not hesitate to contact us, for any additional information.
