

MEGAPOXY PM, PME

Issue 2, 12/2005

Additional technical notes for Segmental bridge application

Summary	<p>Megapoxy PME is designed to be a less viscous product than Megapoxy PM. The benefit of Megapoxy PME is that it can be applied by hand or spray equipment to facilitate ease of application over a larger area.</p> <p>Megapoxy PM & Megapoxy PME are thermosetting 100% solid composition that does not contain solvent or any non-reactive organic ingredient except for pigment required for colouring</p> <p>The viscosity of Megapoxy PME mixed is 150,000 poise.</p> <p>Megapoxy PME does not sag up to 4 mm in thickness.</p>
Pot life	<p>Pot life is the maximum time from start of mixing Megapoxy to when the Megapoxy is applied to the concrete surface.</p> <p>After stored at room temperature for minimum 12 hours, the pot life of a mixed mass of epoxy is:</p> <ul style="list-style-type: none">• Megapoxy temperature @ 5°C: 2 hours• Megapoxy temperature @ 15°C: 90 minutes• Megapoxy temperature @ 25°C: 45 minutes• Megapoxy temperature @ 35°C: 20 minutes
Storage	<p>Epoxy components to be stored at room temperature, between 15-25° Celsius</p>
Open time	<p>Open time is the maximum time from start of application of Megapoxy applied to concrete surface to when it starts to become un-useable.</p> <p>After stored at room temperature for minimum 12 hours, open time for a thin film of epoxy is:</p> <ul style="list-style-type: none">• Ambient / concrete surface temperature @ 5°C - 4 hours• Ambient / concrete surface temperature @ 15°C - 3 hours• Ambient / concrete surface temperature @ 25°C - 2 hours• Ambient / concrete surface temperature @ 35°C - 75 minutes <p>Please note: It is recommended that Megapoxy be used within 75% of the durations noted.</p>
Technical characteristics	<p>After 12 hours the cured properties of Megapoxy PME, at 25°C ambient temperature, are as follows:</p> <ul style="list-style-type: none">• Compressive strength: 8 MPa• Tensile strength: 2 - 3 MPa• Tensile Bond strength: 2- 3 MPa <p>Fully cured Megapoxy PM and PME is a chemically inert solid that does not undergo further change on ageing. Even in an uncured state, Megapoxy PM and PME will not affect other construction material such as concrete and or bituminous membranes.</p>

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.

Concrete

The surface may be either flame-cleaned, or mechanically treated with a scutching tool. Complete the preparation by grinding or scabbling.

Application

- Epoxy to be applied to concrete face at ambient temperatures between 5° to 35°C. (Single grade of epoxy is adequate)
 - Between 0° to 5°C the epoxy is to be stored at a temperature greater than 18°C for 12 hours, prior to application.
 - Immediately before applying Megapoxy, the face of the concrete is to be lightly warmed with a gas torch, ensuring that the concrete becomes no warmer than 20° Celsius.
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Quality assurance

All Megapoxy products conform to the highest International standards and are manufactured by our company under two strict Quality Management Systems that are certified by N.A.T.A. Australia and Lloyds Register as achieving ISO 9002 2000 Rating.

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.