Megapoxy

MC

Heavy Duty Maintenance Coating



Technical Data Sheet

DESCRIPTION

Megapoxy MC is a two component heavy duty, 100% solids, high build, highly chemical resistant and heavy duty maintenance coating.

The Megapoxy MC epoxy coating is suitable for a variety of commercial and industrial floor, wall and steel protection applications. Megapoxy MC provides a decorative, hygienic, dust free coating with heavy abrasion resistance. Megapoxy MC is resistant to hydrogen sulphide that may be present in pipes and plants for the treatment of sewage.

It is recommended that the Megapoxy MC epoxy coatings is applied in a three coat application when used in particularly aggressive and harsh environments. This three coat application will give a total cured maintenance coating thickness of 0.6mm.

The Megapoxy MC epoxy coating is low in volatile organic compounds (Low V.O.C.) and are suitable for coating and protecting structures that are in contact with foodstuffs.

RECOMMENDED APPLICATIONS

- Food, Beverage Facilities including Abattoirs
- Chemical Storage Tanks and Bunds
- Protective Coatings for Concrete and Steel
- Car Parks and Ramps including Forklift Areas
- Factory and Warehouse Floors
- Mechanical Workshops
- Sewage Treatment Plants and Pipes
- Plant Rooms and Machine Rooms

PROPERTIES

Mixing Ratio by Volume	3 Parts A to 1 Part B
Mixing Ratio by Weight	4 Parts A to 1 Part B
Work Time at 25°C:	2 hours
Tack Free Time at 25°C	4 hours
Re-Coat Time 25°C	8 hours
Minimum Cure Time at 15°C	48 hours
Minimum Cure Time at 25°C	24 hours
Minimum Cure Time at 35°C	12 hours
Minimum Application Temperature	10°C
Viscosity Part A at 25°C	95,000 - 140,000 cps
Viscosity Part B at 25°C	250 - 450 cps
Mixed Viscosity at 25°C	13,000 cps
S.G. Part A at 25°C	1.49 - 1.58
S.G. Part B at 25°C	0.96 - 0.98
Mixed S.G. at 25°C	1.37
Coverage - 5kg Kit	20 - 25m^2
Coverage - 20kg Kit	80 - 100m^2
Colour Part A	Various - See Colour Chart
Colour Part B	Amber

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CURED PROPERTIES

Bond Strength Concrete - ASTM D7234	>3MPa (concrete failure)
Tensile Bond Strength Steel - ASTM D897	19.5MPa
Dielectric Strength (kV/mm)	7
Surface Resistivity (Ohm) - ASTM D257	10^{12}
Volume Resistivity (Ohm.cm)	$5.7x10^{10}$
VOC (g/l) - ASTM D3960	34
Water Absorption - ASTM D570	0.140 Increase in weight (%)

CHARACTERISTICS

- Low VOC
- Pre-metered easy to use kit
- Easily mixed manually or mechanically
- Great Coverage
- Can be applied by brush, roller, or airless spray (when thinned)
- Accepts fine aggregates broadcast between coats for non-slip
- Excellent tensile and compressive strengths, superior to concrete
- Excellent chemical resistance
- Gloss finish

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 water at a ratio of 1lt acid to 8lt 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 1627.2.2002. 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.

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MIXING PROCEDURE	Add the entire contents of Part B into the Part A tin, there is enough space to combine both parts in the Part A container. **Megapoxy MC 5kg kits & 20kg kits** Mix the two parts together thoroughly for a minimum of 3 minutes, manually or using a mechanical stirrer on a low speed of 200rpm or lower, making sure to scrape the base and corners of the drum, after 3 minutes, scrape the side of the drum and mix for a further 2 minutes. Set a timer do not guess the time. 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.
APPLICATION	It is recommended that Megapoxy LVS - Low Viscosity Sealer is used as a primer on particularly porous surfaces before the application of Megapoxy MC. Megapoxy LVS can be applied either by roller, brush or spray equipment at a rate of 8-10m^2 per litre. Single coat application of Megapoxy LVS is generally all that is required and thinning is not recommended. Recoat or overcoat approximately between 8 – 24 hours after application of Megapoxy LVS. Megapoxy MC can be thinned up to 10% with Megapoxy Thinners to promote easy working. Add a maximum of 10% Megapoxy Thinners on the first coat, 5% on the second coat and so on. However, care must be taken to ensure that all thinners have evaporated before applying subsequent coats. If more than 24 hours elapses between coats, it is necessary to thoroughly abrade the coated surface to a uniform dull finish using 60 grit abrasive paper.
NON-SLIP SURFACES	If you wish to have a non slip surface, broadcast epoxy quality sand, glass beads, carborundum or silicone oxide over the first freshly applied coat. This can either be left as is for an aggressive non slip surface, Then re-coat with Megapoxy MC to lock the aggregate in-between coats. A fine aggregate can also be mixed through the Megapoxy MC. Once the Megapoxy MC has been thoroughly mixed, the addition of approximately 250gms of required aggregate size per 5kgs of Megapoxy MC, should give a fairly even coat of non-slip when using a roller on the surface to be coated. Depending on the grip level required, this can be done in all coats or just the first one.

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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 MC Safety Data Sheet.
PACKAGING	Megapoxy MC is available in all colours in 5kg (approx. 4lts). Megapoxy MC is available in Grey, Mid Grey and Dark Grey in 20kg (approx. 16lts) 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.

STANDARD COLOURS FOR MEGAPOXY MC

- Caribbean
- Blue
- Pacific Blue
- Charcoal
- Dark Grey
- Mid Grey
- Neutral Grey N23
- Koala Grey
- Safety Yellow
- White
- Black

Please Note; These colours are a digital/print representation of our standard Megapoxy MC colours. The finished product may be different to these colours. For accurate colour samples please contact our Technical Department or sample Megapoxy MC colour chips.

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