Megapoxy®

Proven solutions for water and wastewater infrastructure

SOLUTIONS FOR TODAY
50
YEARS OF INNOVATION
AND TOMORROW

Supporting critical infrastructure

For more than 50 years, Megapoxy has supported critical infrastructure projects across Australia and the world.

Our epoxy adhesive solutions are engineered to protect, strengthen and extend the life of water and wastewater assets – from dams and reservoirs to pipelines and treatment plants.

Their use provides long-term protection and durability in harsh environments, and establishes and reinstates structural integrity in the event of corrosion, abrasion or leaks. This delivers reduced capital expenditure and maintenance costs while increasing safety and sustainability.

Megapoxy built for water systems

- ✓ Corrosion, chemical and abrasion resistant including against hydrogen sulphide.
- ✓ Internal surface protection to avoid the release of particles and debris that clog valves and pipes and contaminate supply.
- ✓ Resists bacteria and microbial growth.
- ✓ Excellent waterproofing capabilities with the right film thickness and correct application.
- ✓ Nil water absorption (with test reports available).
- ✓ Compliant with AS/NZS 4020 Potable Water standards.

The Megapoxy difference

Certified assurance

Compliant with all key Australian and international standards.

Australian-owned and operated

With local manufacturing and supply chain certainty for projects of any size.

Easy to specify and apply

Clear technical data and instructions, local expertise.

Safe and sustainable

The majority of Megapoxy products are very low VOC meaning minimal odour, safer applications and a more sustainable choice.

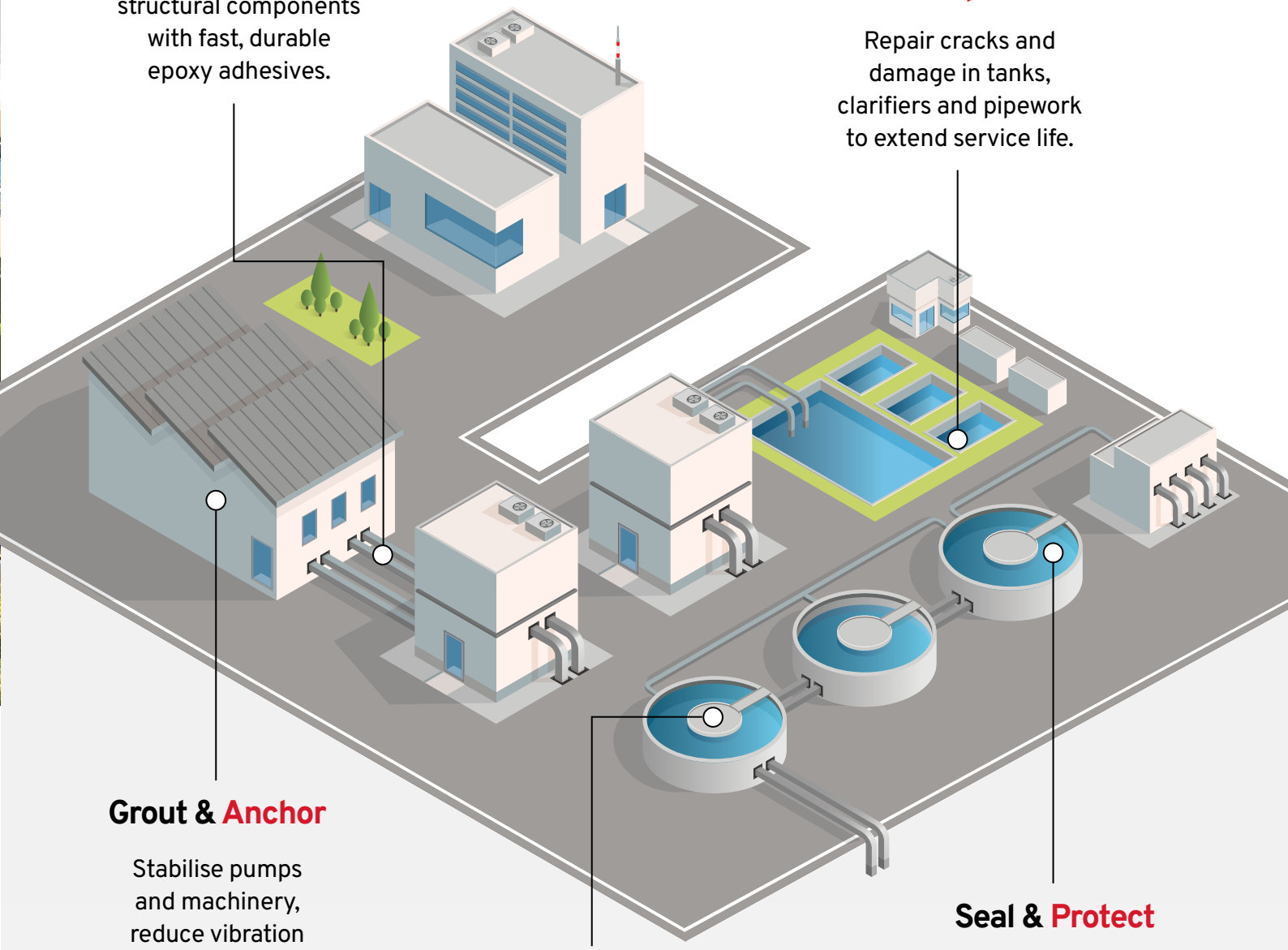
Trusted across the water lifecycle

Bond & Secure

Bond pipes, culverts and structural components with fast, durable epoxy adhesives.

Strengthen & Repair

Repair cracks and damage in tanks, clarifiers and pipework to extend service life.



Grout & Anchor

Stabilise pumps and machinery, reduce vibration and fill gaps.

Protect High-wear Equipment

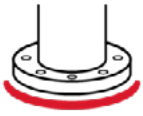
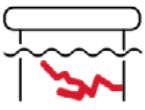
Strengthen tiles, aerators and screw conveyors in high-friction environments.

Seal & Protect

Coat, paint & protect tanks, pipes and bunds from corrosion and wear.

Product selection guide

At a glance: the best Megapoxy products to your asset type.

Assets	Megapoxy solutions	Ideal for
 **Tanks & Vessels** Tanks, bunds, process vessels, clarifiers, settling tanks	H, HT (Grey), P1, 206 Ultra, Deep Pour, 132 (Grey), MC2 (Grey), Megadure Ceramic Coating	Coating, sealing, patching, grouting, anchoring, chemical & H_2S resistance
 **Piping Systems** Pipework, pipes, elbows, culverts	H, HT (Grey), P1, MC2 (Grey), Megadure Ceramic Paste, Megadure Ceramic Coating	Protective coating, internal surface protection, bonding, crack repair
 **Mechanical Equipment** Pumps, heat exchangers, aerators, screw conveyors	H, P1, 206 Ultra, Deep Pour	High vibration, grouting under load-bearing components
 **High-wear Equipment** Wear-resistant tiles, high-flow pipes, high-wear equipment	H, HT (Grey), P1, MC2 (Grey), Megadure Ceramic Paste, Megadure Ceramic Coating	Abrasion-resistant lining and repair, internal surface protection/ protective coatings
 **General Infrastructure** Grouting areas, joints, linings, crack and patch repairs	H, P1 , 206 Ultra, Deep Pour	Structural integrity, crack sealing, joint fillers and sealants, waterproofing systems

Product spotlight

Megapoxy P1

High-strength epoxy paste adhesive for structural bonding.

- **Applications:** Bonding structural materials, repairing cracks and defects in water infrastructure.
- **Key benefits:** Potable-water safe, resistant to hydrogen sulphide, strong and permanent bonds.

Megapoxy 206 Ultra

Heavy-duty epoxy grout for anchoring and stabilising.

- **Applications:** Anchoring pumps, filling structural voids, grouting under heavy machinery and water infrastructure.
- **Key benefits:** Potable-water safe, solvent-free, flowable and water-displacing, adheres and cures in cold and damp conditions, maintains strength after water immersion, has excellent compressive strength and is corrosion resistant.

Megapoxy MC2 Grey

Heavy-duty maintenance coating for protection and maintenance.

- **Applications:** Tanks, pipes and clarifiers in water and wastewater systems.
- **Key benefits:** Potable-water safe (colour specific), resistant to hydrogen sulphide, chemicals and abrasion.

Megapoxy H

High-strength epoxy adhesive for bonding and repair.

- **Applications:** Wet-to-dry concrete bonding, crack repair, patching and anchoring in water infrastructure. H is liquid epoxy resin (for priming, bonding and pourable mortar mixes).
- **Key benefits:** Potable-water safe applications, resistant to hydrogen sulphide, suited to underwater and splashzone repairs.

Product spotlight

Megapoxy 132 Grey

High-strength epoxy adhesive for filling and coating.

- **Applications:** Surface repairs and protection, coatings, concrete protection and surface sealing.
- **Key benefits:** Potable-water safe applications, waterproofing and protection of concrete and timber, safe for food-and-beverage and drinking-water contact, high abrasion resistance for factory and sporting-complex environments.

Ceramic Coating

Heavy-duty abrasion-resistant epoxy coating for high-wear surfaces.

- **Applications:** Protective coating for concrete and steel in high wear applications.
- **Key benefits:** Heavy-duty abrasion resistance, strong chemical durability for wastewater environments, creates a hygienic, dust-free protective surface.

Megadure Ceramic

Abrasion-resistant epoxy paste for high-wear surfaces.

- **Applications:** Protective lining and repair of pumps, aerators, screw conveyors tiles and high-flow pipes.
- **Key benefits:** Potable-water safe, exceptional wear resistance, prolongs service life in harsh environments, available in standard and quick-set formulations.

Megapoxy HT Grey

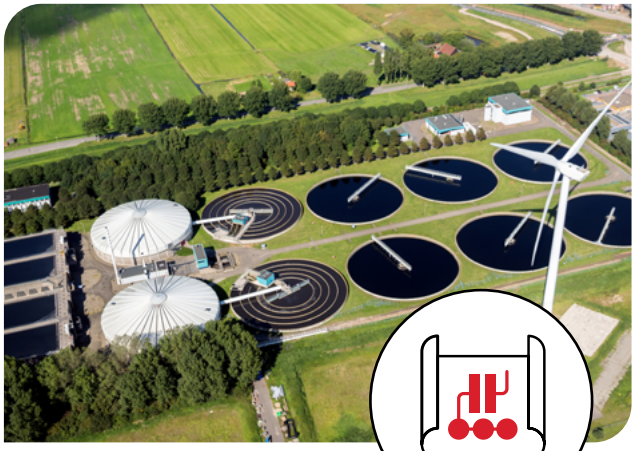
Hydrophilic epoxy adhesive for bonding and filling.

- **Applications:** Wet-to-dry concrete bonding, crack repair, patching and anchoring in water infrastructure. HT is non-sag epoxy paste (for vertical and overhead repairs).
- **Key benefits:** Potable-water safe, resistant to hydrogen sulphide, suited to underwater and splashzone repairs.

Solutions for every stage

Our epoxy adhesive solutions support water and wastewater assets at every stage – from installation and repair to renewal of ageing structures.

Megapoxy in Action: See Projects.



Greenfield

- Long-term protection for pipes, tanks and structures.
- Chemical and abrasion-resistant coatings.
- Compliant bonding and lining systems for water assets.

Maintenance

- Extend asset life with resurfacing and protective coatings.
- Minimise downtime with fast-curing repairs.
- Enhance wear resistance on mechanical components.

Repair

- Seal cracks and restore structural integrity.
- Compatible with joints, elbows and culverts.
- Easy-to-apply solutions for quick fixes.

Retrofit

- Upgrade ageing infrastructure.
- Add long-lasting protection to worn surfaces.
- Improve performance without full replacement.

Certified and tested performance

Our formulations are proven through extensive in-house and independent testing to meet the demands of essential infrastructure.

Certified confidence

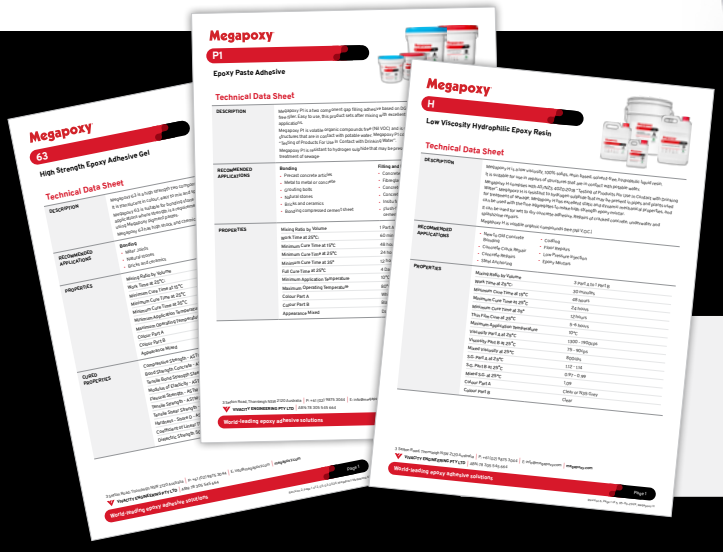
- **APAS-recognised manufacturing unit:** approved under the Australian Paint Approval Scheme.
- **ISO9001:2015:** international benchmark for quality management systems.
- **AS/NZS 4020:2018:** potable water certification available on key products (colour-specific).

FS 707273

Meticulous testing

Our comprehensive testing program includes:

- **Mechanical testing:** response to stresses and strains under compressive, tensile and flexural loads.
- **Abrasion resistance (Taber method):** validated wear resistance.
- **UV & weathering chamber:** accelerated exposure simulates years of sunlight and rain in days.
- **Condensation cycles:** verify coatings withstand moisture and vapour exposure.
- **Hydrogen sulphide resistance:** protection for wastewater and sewerage assets.



Support & data

- Full technical data sheets available for all products.
- Local technical support and clear advice for specification.

Scan the QR code to access the full TDS library.

Megapoxy®

P1

Epoxy Paste Adhesive

Technical Data Sheet

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 has very low volatile organic compounds and is suitable for use in repairs of structures that are in contact with potable water. Megapoxy P1 complies with AS/NZS 4020:2018 "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
- Concrete floors and stairs
- Concrete column
- Insitu formed concrete
- Flush-filling countersunk screws in fibre cement sheet

PROPERTIES

Mixing Ratio by Volume	1 Part A to 1 Part B
Work Time at 25°C:	60 minutes
Minimum Cure Time at 15°C	48 hours
Minimum Cure Time at 25°C	24 hours
Minimum Cure Time at 35°C	12 hours
Full Cure Time at 25°C	4 Days
Minimum Application Temperature	10°C
Maximum Operating Temperature	80°C
Colour Part A	White
Colour Part B	Black
Appearance Mixed	Dark Grey

3 Sefton Road, Thornleigh NSW 2120 Australia | P: +61 (02) 9875 3044 | E: info@megapoxy.com | **megapoxy.com**

VIVACITY ENGINEERING PTY LTD | ABN: 78 305 545 664

Megapoxy

Technical Data Sheet

CURED PROPERTIES

Ultimate Compressive Strength - ASTM C579	80MPa
Yield Compresive Strength - ASTM C579	55MPa
Bond Strength Concrete - ASTM D4541	>3MPa
Tensile Bond Strength Steel - ASTM D897	18MPa
Modulus of Elasticity - ASTM C579	2.9GPa
Flexural Strength - ASTM D790	43MPa
Tensile Strength - ASTM D638	25MPa
Tensile Lap Shear Strength - ASTM D1002	13MPa (steel to steel)
Hardness - Shore D - ASTM D2240	75
Surface Resistivity (Ohm)	10^{12}
Volume Resistivity (Ohm.cm)	1.76×10^{11}
Dielectric Strength (kV/mm)	17
Coefficient of Linear Thermal Expansion	59.0×10^{6} mm/mm/°C
VOC (g/l) - ASTM D3960	4
Water Vapour Transmission - ASTM E96/E96M	0.000 (gram/hr m^2)
Water Absorption - ASTM D570	0.067 Increase in weight (%)

CHARACTERISTICS

- Very Low VOC
- Simple 1:1 mix ratio
- Creamy Texture, blend easily
- No – Sag on vertical & overhead surfaces
- Adheres 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
- Flash Point above 200°C

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 like solid that will retain strength permanently.

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

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

3 Sefton Road, Thornleigh NSW 2120 Australia | P: +61 (02) 9875 3044 | E: info@megapoxy.com | **megapoxy.com**

VIVACITY ENGINEERING PTY LTD | ABN: 78 305 545 664

Technical Data Sheet

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 equal volume of 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.
IMPORTANT INFORMATION	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. **Do not mix the Part A and Part B together using water.** **Doing this will reduce the performance of the cured Megapoxy P1.**
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 P1 Safety Data Sheet.
PACKAGING	Megapoxy P1 is available in 4lt and 20lt kits.
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.

Megapoxy

206 Ultra

Heavy Duty Epoxy Grout

Technical Data Sheet

DESCRIPTION

Megapoxy 206 Ultra is a two component, 100% solids, resin based, solvent-free, hydrophilic water displacing, flowable epoxy grout, designed specifically for use in civil engineering applications, where development of high compressive and impact strength is required.

Megapoxy 206 Ultra complies with AS/NZS 4020:2005 "Testing of Products For Use In Contact with Drinking Water".

RECOMMENDED APPLICATIONS

- Pile Splicing
- Pile Repair & Restoration
- Locking Bearings
- Rail Track Grouting
- Core Hole Filling
- Locking PT Cables
- Grouting Machinery
- Setting Anchor Bolts
- Machinery Grouting
- Bridge Bearing Pads
- Floor Repairs
- Filling Truncation Pockets

PROPERTIES

Mixing Ratio by Volume	5 Part A to 1 Part B
Work Time at 25°C:	30 minutes
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	45000 - 55000cps
Viscosity Part B at 25°C	75-90cps
Mixed Viscosity at 25°C	10000cps
S.G. Part A at 25°C	1.60 - 1.70
S.G. Part B at 25°C	0.97 - 0.99
Mixed S.G. at 25°C	1.54
Colour Part A	Grey
Colour Part B	Black
Appearance Mixed	Grey

Technical Data Sheet

CURED PROPERTIES

Ultimate Compressive Strength - ASTM C579	115MPa
Yield Compressive Strength - ASTM C579	95MPa
Bond Strength Concrete - ASTM D4541	>3MPa
Tensile Bond Strength Steel - ASTM D897	9.5MPa
Modulus of Elasticity - ASTM C579	3GPa
Flexural Strength - ASTM D790	60MPa
Tensile Strength ASTM D638	28MPa
Tensile Lap Shear Strength - ASTM D1002	8MPa (steel to steel)
Hardness - Shore D - ASTM D2240-00	80
Dielectric Strength (kV/mm)	58
Surface Resistivity (Ohm) - ASTM D257	10^{12}
Volume Resistivity (Ohm.cm)	$5.1x10^{10}$
Peak Exotherm Temp - ASTM D2471	93.7°C (415ml)
VOC (g/l) - ASTM D3960	3
Water Vapour Transmission - ASTM E96/E96M	0.095 (gram/hr m^2)
Water Absorption - ASTM D570	0.066 Increase in weight (%)

CHARACTERISTICS

- Very Low VOC
- Pre-Metered Kits
- Mixes Easily - Manually or Mechanically
- Flowable, Can be poured under 5mm plates
- Adheres 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
- Flash Point above 100°C

LAYER THICKNESS (Single Pour)

Minimum Grout Depth: 5mm

Maximum Grout Depth: 50mm*

*To discuss your application and project requirements, please contact the Technical Department for further information and required pour thickness.

STEEL ANCHORING

For anchoring steel into concrete drill a hole approximately 1.5 diameters of the steel to be grouted. Any dust or foreign matter must be blown out with oil-free, dry compressed air. Set the steel into the hole and pour the above Megapoxy 206 Ultra formulation from one side to allow air to escape. The steel should be grit blasted and degreased to achieve good bond.

TYPICAL PULL OUT STRENGTH - 40Mpa CONCRETE

14mm deformed bar inserted to depth 10 x diameter of bar >50kN

25mm deformed bar inserted to depth 8 x diameter of bar >150kN

14mm deformed bar inserted to depth 8 x diameter of bar >50kN

25mm deformed bar inserted to depth 10 x diameter of bar >150kN

3 Sefton Road, Thornleigh NSW 2120 Australia | P: +61 (02) 9875 3044 | E: info@megapoxy.com | **megapoxy.com**

VIVACITY ENGINEERING PTY LTD | ABN: 78 305 545 664

Technical Data Sheet

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 equal volume of 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.
MIXING PROCEDURE	Add the entire contents of Part B into the Part A pail, there is enough space to combine both parts in the Part A container. Mix the two parts together thoroughly for 2 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 pail. Do not move the mixer up and down. Once 2 minutes is up, scrape the sides of the pail with a straight edge to remove unmixed Part A from the sides of the pail. Do not use the mixer head to scrape the sides. Mix for another 1 minute, if there is a black ring of Part B around the edge of the pail, lift the mixer slightly and lean the mixer back approximately 30°, this will change the resin flow and should pull the Part B into the mix. Ensure the mixture is thoroughly mixed, this is essential, as incomplete mixing will result in poor physical properties. Megapoxy 206 Ultra must be applied immediately after mixing. If ambient temperature is high, Megapoxy 206 Ultra should be stored in a cool place until used. High ambient temperatures will lead to shortened usable life. Topping up can be carried out at a later date when convenient. If you do not require adhesion of the Megapoxy 206 Ultra, form work surfaces should be coated with Megapoxy Wax or silicone based release agent.
IMPORTANT INFORMATION	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.

Technical Data Sheet

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 206 Ultra Safety Data Sheet.
PACKAGING	Megapoxy 206 Ultra is available in 8.8kg (approx. 6lt) and 25.3kg (approx.16lt) kits.
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.

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 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 Megapoxy MC 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 0.4 - 0.5 mm. Megapoxy MC is volatile organic compounds free (Nil V.O.C.) is 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

Megapoxy MC is available in either a Standard Cure version or in a Rapid Setting version called Megapoxy MC2.

	Megapoxy MC (std)	Megapoxy MC2 (Rapid)
Mixing Ratio by Volume	3 Parts A to 1 Part B	3 Parts A to 1 Part B
Mixing Ratio by Weight	4 Parts A to 1 Part B	4 Parts A to 1 Part B
Work Time at 25°C:	2 hours	30 minutes
Tack Free Time at 25°C	4 hours	2 hours
Re-Coat Time 25°C	8 hours	4 hours
Minimum Cure Time at 25°C	24 hours	24 hours
Minimum Application Temperature	10°C	10°C
Coverage - 5kg Kit	20 - 25m^2	20 - 25m^2
Coverage - 20kg Kit	80 - 100m^2	80 - 100m^2
Maximum Operating Temperature	100°C	100°C
Colour Part A	Various - See Colour Chart	Various - See Colour Chart
Colour Part B	Amber	Clear

Technical Data Sheet

CURED PROPERTIES

Compressive Strength - ASTM D695	70Mpa (MC2 only)
Bond Strength Concrete - ASTM D4541	>3Mpa
Tensile Bond Strength Steel - ASTM D897	13Mpa
Modulus of Elasticity - ASTM D695	2.4Gpa
Tensile Strength - ASTM D638	30Mpa
Hardness - Shore D - ASTM D2240	80
Dielectric Strength 50Hz @25°C(Kv/mm)	17

CHARACTERISTICS

- VOC Free
- Pre-metered easy to use kit
- Easily mixed by hand or mechanically
- Great Coverage
- Can be applied by brush, roller, squeegee (MC2 only) or airless spray
- 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 equal volume of 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 CK 9.4 - 1964 Class 3 finish. 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.

Technical Data Sheet

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, by hand 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. **Megapoxy MC2 5kg kits** Mix the two parts together thoroughly for a minimum of 2 minutes, by hand 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 2 minutes, scrape the side of the drum and mix for a further 1 minute. 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.
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.

Technical Data Sheet

PACKAGING	Megapoxy MC & MC2 are available in 5kg kits and 20kg kits. 5kg kits: Caribbean Blue, Blue, Pacific Blue, Charcoal, Dark Grey, Mid Grey, Grey, Koala Grey, Safety Yellow, White, Black. 20kg kits: Charcoal, Dark Grey, Mid Grey, Grey 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 Grey 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.

3 Sefton Road, Thornleigh NSW 2120 Australia | P: +61 (02) 9875 3044 | E: info@megapoxy.com | **megapoxy.com**

VIVACITY ENGINEERING PTY LTD | ABN: 78 305 545 664

Megapoxy®

H

Low Viscosity Hydrophilic Epoxy Resin

Technical Data Sheet

DESCRIPTION

Megapoxy H is a low viscosity, 100% solids, resin based, solvent-free, hydrophilic liquid resin.

It is suitable for use in repairs of structures that are in contact with potable water.

Megapoxy H complies with AS/NZS 4020:2018 "Testing of Products For Use In Contact with Drinking Water". Megapoxy H is resistant to hydrogen sulphide that may be present in pipes and plants used for treatment of sewage. Megapoxy H has excellent static and dynamic mechanical properties, and can be used with the fine aggregates to make high strength epoxy mortar.

It can be used for wet to dry concrete bonding. Repairs of cracked concrete, underwater and splashzone repairs.

Megapoxy H has very low volatile organic compounds.

RECOMMENDED APPLICATIONS

- New to Old Concrete Bonding
- Concrete Crack Repair
- Underwater and Splashzone Repairs
- Steel Anchoring
- Coating
- Floor Repairs
- Low Pressure Injection
- Epoxy Mortars

PROPERTIES

Mixing Ratio by Volume	3 Part A to 1 Part B
Work Time at 25°C:	30 minutes
Minimum Cure Time at 15°C	48 hours
Minimum Cure Time at 25°C	24 hours
Minimum Cure Time at 35°C	12 hours
Thin Film Cure at 25°C	5-6 hours
Minimum Application Temperature	10°C
Viscosity Part A at 25°C	1300 - 1900cps
Viscosity Part B at 25°C	75 - 90cps
Mixed Viscosity at 25°C	800cps
S.G. Part A at 25°C	1.12 - 1.14
S.G. Part B at 25°C	0.97 – 0.99
Mixed S.G. at 25°C	1.09
Colour Part A	Clear or N35 Grey
Colour Part B	Clear
Colour Mixed	Clear or N35 Grey

Technical Data Sheet

CURED PROPERTIES

Yield Compressive Strength - ASTM C579	92MPa
Ultimate Compressive Strength - ASTM C579	120MPa
Bond Strength Concrete - ASTM D4541	>3MPa
Tensile Bond Strength Steel - ASTM D897	18MPa
Modulus of Elasticity - ASTM C579	1.7GPa
Flexural Strength - ASTM D790	59MPa
Tensile Strength - ASTM D638	57MPa
Tensile Lap Shear Strength - ASTM D1002	7MPa steel to steel
Hardness - Shore D - ASTM D2240-00	75 minimum
Dielectric Strength (kV/mm)	13.6
Surface Resistivity (Ohm) - ASTM D257	10^{12}
Volume Resistivity (Ohm.cm)	2.2×10^{11}
VOC (g/l) - ASTM D3960	2
Water Vapour Transmission - ASTM E96/E96M	0.095 (gram/hr m^2)
Water Absorption - ASTM D570	0.184 Increase in weight (%)

CHARACTERISTICS

- Very Low VOC
- Hydrophilic
- Thin Liquid
- Mixes easily manually or mechanically
- Very high strength permanent bonds
- Excellent tensile and compressive strengths, superior to concrete
- Excellent chemical resistance

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 equal volume of 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.

Technical Data Sheet

STEEL ANCHORING	For anchoring steel into concrete, drill a hole approximately 1.5 diameters of the steel to be grouted. Any dust or foreign matter must be blown out with oil-free, dry compressed air. Set the steel into the hole and pour the mixed Megapoxy H from one side to allow air to escape. Allow to cure for 24 hours. For grouting of steel horizontally use Megapoxy HT instead of Megapoxy H. The steel should be grit blasted and degreased to achieve good bond.
TYPICAL PULL OUT STRENGTH - 40 MPa CONCRETE	14 mm deformed bar inserted to depth 10 x diameter of bar : > 50 kN 25 mm deformed bar inserted to depth 8 x diameter of bar : > 150 kN 14 mm deformed bar inserted to depth 8 x diameter of bar : > 50 kN 25 mm deformed bar inserted to depth 10 x diameter of bar : > 150 kN
BASIC FORMULATION FOR CRACK SEALING AND ANCHORING STEEL INTO CONCRETE	Mixing Ratio by volume — 3 Parts A to 1 Part B Mix thoroughly for a minimum of 3 minutes and dispense by pouring or pressure injection.
CRACK REPAIR - TREATMENT OF CRACKS	The treatment of cracks in concrete not expected to undergo further movement can be carried out by one of the following methods: **Capillary Action** Methylated Spirits or Acetone is applied to the crack followed by brush coating of mixed Megapoxy H. As the solvent dries out, the resin is drawn into the crack. **Low Pressure Injection** Prepare concrete around the crack by lightly grinding the surface. Bond crack injection balloons over the crack at a distance of 300mm apart, depending on the crack width, using Megapoxy PM. Seal over the balloon bases and crack to a minimum width of 50mm either side of the crack, using Megapoxy PM. Once the Megapoxy PM has cured, mix the Megapoxy H and pour into the back of the crack injection gun. Open all the crack injection balloon taps, attach the crack injection gun to the crack injection balloon and pump the Megapoxy H into the balloon until it comes out of the next balloon or the balloon inflates to approx. 20mm. Turn tap off and repeat the process until all the balloons are inflated and remain inflated. Once every thing has cured, knock balloons of with a chisel below the steel clip, then using a 40grit flap disc, grind the surface back smooth. **Pressure Injection** Seal outside of crack with Megapoxy PM non-sag paste system. Some “V-ing” may be necessary to obtain better bonding. When applying the Megapoxy PM, bond over the crack nuts into which ball-less grease nipples can be screwed prior to injection the next day. Nuts should be placed 200 to 400 mm apart, depending on the depth of the crack. The deeper the crack, the closer the nut. Megapoxy H can be injected by grease gun or pressure pot. A nipple is screwed into the bottom-most nut and Megapoxy H injected until it exudes from the adjacent nut. Remove the nipple and plug with fitting bolt. The nipple is then screwed into the next nut and the procedure repeated until the crack is full. In some cases it may be necessary to seal concrete on the opposite side with Megapoxy PM. The following day the nuts can be removed with a chisel leaving a minimum of grinding to achieve a clean appearance.

Technical Data Sheet

IMPORTANT INFORMATION	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.

EPOXY MORTARS AND EPOXY CONCRETE

POURABLE EPOXY MORTARS

POURABLE EPOXY MORTAR (GROUT)	Mixing Ratio by volume	3 Parts A to 1 Part B 12 Parts Silica 50N by volume
	The proportion of silica 50N (epoxy quality fine sand) can be varied to provide suitable pourability in cold and warm weather conditions.	
LARGE POUR POURABLE EPOXY MORTAR (GROUT)	Mixing Ratio by volume	3 Parts A to 1 Part B 12 Parts Silica 16/30 by volume
	This mix of Megapoxy H and silica 16/30 (epoxy quality sand) can be used for larger and deeper sized pour while still maintaining strength. It can be varied slightly to provide different pourability. Suitable for large truncation pocket grouting. Compressive Strength : 75MPa	

TROWELLABLE EPOXY MORTARS

EASY TO WORK MORTAR	Mixing Ratio by volume	3 Parts A to 1 Part B 12 Parts Silica 50N by volume
	Prior to placement of this mortar, prime the prepared concrete surface with a brush applied coat of pre-mixed Megapoxy H. Finish the placed mortar using a steel trowel. To avoid sticking and dragging of the trowel, broadcast a thin layer of Silica 50N on the mortar surface and work with trowel until desired surface finish is achieved. Allow to cure for 24 hours. Compressive Strength : 80MPa	
HIGH STRENGTH CORRECTIVE RESURFACING MORTAR.	Mixing Ratio by volume	3 Parts A to 1 Part B 12 Parts Silica 50N by volume 12 Parts Silica 30/60 by volume
	Prior to placement of this mortar, prime the prepared concrete surface with a brush applied coat of pre-mixed Megapoxy H. Finish the placed mortar using a steel trowel. To avoid sticking and dragging of the trowel, broadcast a thin layer of Silica 50N on the mortar surface and work with trowel until desired surface finish is achieved. Allow to cure for 24 hours. This provides a moisture tolerant epoxy modified leveling screed upto 6 mm in thickness. Compressive Strength : 70MPa	

Megapoxy

Technical Data Sheet

EPOXY CONCRETE	
HIGH STRENGTH MEGAPOXY H BASED CONCRETE	Mixing Ratio by volume 3 Parts A to 1 Part B 10 Parts Silica 50N by volume 10 Parts Blue Metal 10 - 20 mm by volume Prior to placement of this mortar, prime the prepared concrete surface with a brush applied coat of pre-mixed Megapoxy H. Finish the placed mortar using a steel trowel. To avoid sticking and dragging of the trowel, broadcast a thin layer of Silica 50N on the mortar surface and work with trowel until desired surface finish is achieved. Allow to cure for 24 hours. This provides a moisture tolerant epoxy modified leveling screed up to a 6 mm in thickness. Compressive Strength : 70MPa
NEW TO OLD CONCRETE ADHESIVE	Mixing Ratio by volume 3 Parts A to 1 Part B Mix Megapoxy H as detailed above and apply by brush, roller or airless spray to prepared old concrete at the rate of 1 to 1.5 litres per square metre. Place new concrete within 15 minutes of applying Megapoxy H to ensure good bonding. For vertical and overhead rendering use Megapoxy HT in place of Megapoxy H.

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 H Safety Data Sheets.
PACKAGING	Megapoxy H is available in 4lt & 20lt 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.

3 Sefton Road, Thornleigh NSW 2120 Australia | P: +61 (02) 9875 3044 | E: info@megapoxy.com | **megapoxy.com**
VIVACITY ENGINEERING PTY LTD | ABN: 78 305 545 664

Megapoxy

132

High Strength Epoxy Coating

Technical Data Sheet

DESCRIPTION

Megapoxy 132 is a two component, solvent free, low viscosity protective floor coating suitable for a variety of commercial and industrial applications. With the inclusion of Coloured Pigment Megapoxy 132 floor coating provides a decorative surface finish with aesthetically pleasing appearance, high strength, abrasion resistance and serviceability to allow regular cleaning. AS 4020:2018 Potable Water Approved

Megapoxy 132 is free from any suspected or potential carcinogens or mutagens and will not taint foodstuffs. Megapoxy 132 conforms to the requirements of the Department of Primary Industries for coatings and floorings used in food processing establishments such as abattoirs for export purpose.

Megapoxy 132 has low volatile organic compounds and is suitable for coating and protecting structures that are in contact with foodstuffs and potable water.

RECOMMENDED APPLICATIONS

- Food and Beverage Production Facilities
- Pharmaceutical Industries
- Hospital and Catering Kitchens
- Showrooms
- Factory and Warehouse Floors
- Bakeries and Cafe's
- Bathrooms
- Forklift Ramps and Driveways

PROPERTIES

Mixing Ratio by Volume	2 Parts A to 1 Part B
Work Time at 25°C:	30 minutes
Minimum Cure Time at 15°C	48 hours
Minimum Cure Time at 25°C	24 hours
Minimum Cure Time at 35°C	12 hours
Thin Film Cure at 25°C	4-6 hours at 25°C
Minimum Application Temperature	10°C
Viscosity Part A at 25°C	1300 – 1900cps
Viscosity Part B at 25°C	130 – 160cps
Mixed Viscosity at 25°C	620cps
S.G. Part A at 25°C	1.12 – 1.14
S.G. Part B at 25°C	0.97 – 0.99
Mixed S.G. at 25°C	1.08
Colour Part A	Clear or N35 Grey
Colour Part B	Clear
Colour Mixed	Clear or N35 Grey

3 Sefton Road, Thornleigh NSW 2120 Australia | P: +61 (02) 9875 3044 | E: info@megapoxy.com | **megapoxy.com**

VIVACITY ENGINEERING PTY LTD | ABN: 78 305 545 664

Technical Data Sheet

CURED PROPERTIES

Yield Compressive Strength - ASTM C579	59MPa
Utimate Compressive Strength - ASTM C579	120MPa
Bond Strength Concrete - ASTM D4541	>3MPa
Tensile Bond Strength Steel - ASTM D897	14MPa
Modulus of Elasticity - ASTM C579	0.068GPa
Flexural Strength - ASTM D790-17	81MPa
Tensile Strength - ASTM D638	50MPa
Tensile Lap Shear Strength - ASTM D1002	8MPa (steel to steel)
Hardness - Shore D - ASTM D2240-00	75
Dielectric Strength (kV/mm)	35
Surface Resistivity (Ohm) - ASTM D257	10^{12}
Volume Resistivity (Ohm.cm)	8.5×10^{10}
VOC (g/l) - ASTM D3960	7
Water Vapour Transmission - ASTM E96/E96M	0.000 (gram/hr m^2)
Water Absorption - ASTM D570	0.225 Increase in weight (%)

CHARACTERISTICS

- Low VOC
- Simple 2:1 mix ratio
- Easily mixed manually or mechanically
- Can be applied by brush, roller, squeegee or airless spray
- Can be used with fine aggregates to make screed floors
- Accepts fine aggregates broadcast between coats for non-slip
- Excellent tensile and compressive strengths, superior to concrete
- Excellent chemical resistance
- High gloss finish

3 Sefton Road, Thornleigh NSW 2120 Australia | P: +61 (02) 9875 3044 | E: info@megapoxy.com | **megapoxy.com**

VIVACITY ENGINEERING PTY LTD | ABN: 78 305 545 664

Technical Data Sheet

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 equal volume of 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.
IMPORTANT INFORMATION	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.
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 132 Safety Data Sheet.
PACKAGING	Megapoxy 132 is available in 4.5lt, 15lt & 30lt kits in clear, it is also available in N35 Grey in 30lt 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.

Megapoxy

CERAMIC COATING

Heavy Duty Epoxy Ceramic Coating

Technical Data Sheet

DESCRIPTION

Megadure Ceramic Coating is a two component, ceramic sphere filled, 100% solids, high build, highly chemically resistant and heavy duty wear coating, suitable for a variety of commercial and industrial applications where high wear can be expected. Suitable for floor, wall and steel protection applications.

Megadure Ceramic Coating provides a hygienic, dust free coating with heavy abrasion resistance.

Megapoxy LVS can be used in conjunction with Megadure Ceramic Coating as a primer when used on porous surfaces to aid in increase adhesion.

Megadure Ceramic Coating can be applied by using a roller, brush, squeegee or trowel.

RECOMMENDED APPLICATIONS

- Protectice coating for concrete and steel
- Plant rooms & machine rooms
- Car parks & ramps
- Steel Beds
- Pipes
- Mechanical Workshops
- Factory & warehouse floors
- Mechanical workshop floors
- Housings & tanks
- Chutes
- Chemical Storage Tanks & Bunds
- Sweage Treatment Planst & Pipes

PROPERTIES

Mixing Ratio by Volume	3 Part A to 1 Part B
Mixing Ratio By Weight	4 Part A to 1 Part B
Work Time at 25°C	30 minutes
Tack Free Time At 25°C	2 hours
Recoat Time at 25°C	4 hours
Minimum Cure Time At 25°C	24 hours
Minimum Cure Time At 35°C	12 hours
Minimum Application Temperature	10°C
Coverage - 5kg Kit	20 - 25m²
Coverage - 5kg Kit	80 - 100m²
Maximum Operating Temperature	100°C
Colour Part A	Grey
Colour Part B	Clear

CURED PROPERTIES

Compressive Strength - ASTM 695 70Mpa	70Mpa
Bond Strength Concrete - ASTM 454 >3Mpa	>3Mpa
Tensile Bond Strength Steel - ASTM 1002 13Mpa	13Mpa
Modulus of Elasticity - ASTM 695 2.4Gpa	2.4Gpa
Tensile Strength 30Mpa	30Mpa
Hardness - Barcol 935 80	80

Technical Data Sheet

CHARACTERISTICS

- VOC Free
- Pre-metered easy to use kit
- Easily mixed by hand or mechanically
- Great Coverage
- Can be applied by brush, roller, squeegee
- High Wear Resistance
- Excellent tensile and compressive strengths, superior to concrete
- Excellent chemical resistance
- Gloss finish

SURFACE PREPERATION

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 equal volume of 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 CK 9.4 - 1964 Class 3 finish. 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.

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.

Megadure Ceramic 5kg kits

Mix the two parts together thoroughly for a minimum of 2 minutes, by hand 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 2 minutes, scrape the side of the drum and mix for a further 1 minutes.
Set a timer do not guess the time.

Megapoxy

Technical Data Sheet

APPLICATION	It is recommended that Megapoxy LVS - Low Viscosity Sealer is used as a primer on particularly porous surfaces before the application of Megadure Ceramic Coating. 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. 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.
IMPORTANT INFORMATION	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.
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 Megadure Ceramic Coating Safety Data Sheets.
PACKAGING	Megapoxy Ceramic Coating available in 5kg 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.

Megapoxy

Megadure Ceramic

Alumina Bead Wear Resistant Lining

Technical Data Sheet

DESCRIPTION

Megadure Ceramic is a HIGH ALUMINA BEAD two component gap filling epoxy paste, wear resistant lining. Megadure Ceramic is designed for protection of equipment in mines, ball mills, coal fired plants, dredging operations, abrasive slurry pumps, bulk handling and processing equipment where extreme abrasion resistance is required. Megadure Ceramic is also suitable for grouting between wear resistant high alumina ceramic tiles, pipe fittings and lining steel surfaces.

Megadure Ceramic is green in colour when fully cured and can be applied by trowel or spatula and cures under ambient conditions within 8 Hours. Megadure Ceramic is proudly Australian manufactured.

Megadure Ceramic is available in 2 formulations, standard setting and fast setting.

2kg Kit	Temp	Standard	Quick Set
Work time	@25°C @15°C	30 minutes 60 minutes	10 minutes 20 minutes
Intial Cure	@25°C @15°C	6 hours 12 hours	2 hours 4 hours
Full Cure	@25°C @15°C	24 hours 48 hours	12 hours 24 hours

Minimum application temperature of 10°C. Curing schedules are dependent with on site conditions and may vary accordingly. The above curing schedule should be used as a guide only.

AVAILABILITY

Megadure Ceramic is available Australia wide in 2 kg kits. Megadure Ceramic is pre-metered in correct proportions for immediate use.

DIRECTIONS

Add Part B (hardener) to Part A (resin) slowly with continual mixing. Thorough mixing is essential, incomplete mixing will result in poor physical properties.

YIELD

1 x 2 kg kit of Megadure Ceramic will yield 0.5 m^2 at 2mm thickness.

Technical Data Sheet

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 a proprietary degreaser. Wire brushing is not entirely satisfactory and gives minimal adhesion only and is not recommended. 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. For maximum adhesion concrete should be completely dry and free of any loose particles dust and dirt. PAINTED SURFACES METALS: Steps should be taken to remove all paint followed by grit blasting. CONCRETE: The surface may be either flame-cleaned, or Mechanically treated by grinding or similar, to remove all traces of paint. Complete the concrete preparation by grinding, scabbling, shot blasting or scarifying.
TECHNICAL SERVICE	All purchasers of Megapoxy products are invited to avail themselves of our technical service on epoxy resins. 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.
HEALTH AND SAFETY	Before handling this product, user should familiarize themselves with the health and safety information provided in Bulletin No.100 Industrial Hygiene Practices and the Material Safety Data Sheet.

Megapoxy®

HT

Hydrophilic Epoxy Gel Adhesive

Technical Data Sheet

DESCRIPTION

Megapoxy HT is a 100% solids, resin based, solvent-free, hydrophilic epoxy gel adhesive. Megapoxy HT is resistant to hydrogen sulphide that may be present in pipes and plants used for treatment of sewage. Megapoxy HT has excellent static and dynamic mechanical properties, and can be used with the fine aggregates to make high strength epoxy mortar.

It can be used for wet to dry concrete adhesive. Repairs of cracked concrete, underwater and splashzone repairs. Megapoxy HT has low volatile organic compounds (VOC) content.

RECOMMENDED APPLICATIONS

- New to Old Concrete Bonding
- Concrete Crack Repair
- Concrete Repairs
- Steel Anchoring
- Coating
- Floor Repairs
- Epoxy Mortars
- Underwater Repairs

PROPERTIES

Mixing Ratio by Volume	3 Part A to 1 Part B
Work Time at 25°C:	30 minutes at 25°C
Minimum Cure Time at 15°C	48 hours
Minimum Cure Time at 25°C	24 hours
Minimum Cure Time at 35°	12 hours
Minimum Application Temperature	10°C
S.G. Part A at 25°C	1.00 - 1.10
S.G. Part B at 25°C	0.97 – 0.99
Mixed S.G. at 25°C	1.03
Colour Part A	N35 Grey
Colour Part B	Clear
Appearance Mixed	N35 Grey

CURED PROPERTIES

Compressive Strength - ASTM D695	100Mpa
Bond Strength Concrete - ASTM D4541	>3Mpa
Tensile Bond Strength Steel - ASTM D897	20Mpa
Modulus of Elasticity - ASTM D695	1.1Gpa
Flexural Strength - ASTM D790	40Mpa
Tensile Strength - ASTM D638	40Mpa
Tensile Shear Strength - ASTM D1002	13Mpa
New to Old Concrete Bonding: Slant Shear Test:	36MPa
Hardness - Shore D - ASTM D2240-00	70 minimum

3 Sefton Road, Thornleigh NSW 2120 Australia | P: +61 (02) 9875 3044 | E: info@megapoxy.com | megapoxy.com

VIVACITY ENGINEERING PTY LTD | ABN: 78 305 545 664

Technical Data Sheet

CHARACTERISTICS CONTINUED	• Low VOC • Hydrophilic • Thin Liquid • Mixes easily by hand • Very high strength permanent bonds • Excellent tensile and compressive strengths, superior to concrete • Excellent chemical resistance
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 equal volume of 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 CK 9.4 - 1964 Class 3 finish. 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.
STEEL ANCHORING	For anchoring steel into concrete, drill a hole approximately 1.5 diameters of the steel to be grouted. Any dust or foreign matter must be blown out with oil-free, dry compressed air. Set the steel into the hole and pour the mixed Megapoxy H from one side to allow air to escape. Allow to cure for 24 hours. For grouting of steel horizontally use Megapoxy HT, grouting steel vertically, Megapoxy H can be used. The steel should be grit blasted and degreased to achieve good bond.
IMPORTANT INFORMATION	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.

Megapoxy

Technical Data Sheet

EPOXY MORTARS AND EPOXY CONCRETE

EPOXY CONCRETE

NEW TO OLD CONCRETE ADHESIVE	Mixing Ratio by volume: 3 Parts A to 1 Part B Mix Megapoxy HT as detailed above and apply by brush, roller or airless spray to prepared old concrete at the rate of 1 to 1.5 litres per square metre. Place new concrete within 15 minutes of applying Megapoxy HT to ensure good bonding. For vertical and overhead rendering use Megapoxy HT in place of Megapoxy H.
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 HT Safety Data Sheets.
PACKAGING	Megapoxy HT is available in 1lt, 4lt and 20lt 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.

Megapoxy

Deep Pour Grout

Heavy Duty Deep Pour Epoxy Grout

Technical Data Sheet

DESCRIPTION

Megapoxy Deep Pour Grout is a two component, 100% solids, resin based, solvent-free, flowable epoxy grout, designed specifically for use in civil engineering applications, where development of high compressive and impact strength is required. Suitable for deep void grouting where a single pour application is required.

RECOMMENDED APPLICATIONS

- Grouting Machinery
- Rail Track Pads
- Rail Grouting
- Core Hole Filling
- Locking PT Cables
- High Load Vibration Grouting
- Chocking Machinery
- Bridge Bearing Pads
- Baseplate Grouting
- Filling Truncation Pockets

PROPERTIES

Mixing Ratio by Volume	5 Part A to 1 Part B
Work Time at 25°C:	60 minutes
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
Mixed Viscosity at 25°C	60000cps
Mixed S.G. at 25°C	1.71
Colour Part A	Grey
Colour Part B	Amber
Appearance Mixed	Grey

CURED PROPERTIES

Ultimate Compressive Strength - ASTM C579	125MPa
Yield Compressive Strength - ASTM C579	80MPa
Bond Strength Concrete - ASTM D4541	>3MPa
Tensile Bond Strength Steel - ASTM D897	19MPa
Modulus of Elasticity - ASTM C579	3.3GPa
Flexural Strength - ASTM D790	72MPa
Tensile Strength ASTM D638	38MPa
Tensile Lap Shear Strength - ASTM D1002	9MPa (steel to steel)
Hardness - Shore D - ASTM D2240-00	88
Dielectric Strength (kV/mm)	52.7
Surface Resistivity (Ohm) - ASTM D257	10^{12}
Volume Resistivity (Ohm.cm)	$1.25x10^{11}$
Peak Exotherm Temp - ASTM D2471	40.5°C (415ml)

3 Sefton Road, Thornleigh NSW 2120 Australia | P: +61 (02) 9875 3044 | E: info@megapoxy.com | **megapoxy.com**

VIVACITY ENGINEERING PTY LTD | ABN: 78 305 545 664

Technical Data Sheet

CHARACTERISTICS	• Low VOC • 2 Part Pre-Metered Kits • Mixes Easily Mechanically • Low Exotherm • Flowable, can be poured under 20mm plates • High strength permanent bonds • Excellent tensile and compressive strengths, superior to concrete • Excellent chemical resistance • Good strength retention after prolonged immersion in water
LAYER THICKNESS	Minimum Grout Depth: 50mm Maximum Grout Depth: 300mm* *To discuss your application and project requirements, please contact the Technical Department for further information and required pour thickness.
STRENGTH DEVELOPMENT	Day 1: 57MPA Day 2: 80MPa Day 7: 86MPa *ASTM C579-23
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 equal volume of 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.

Technical Data Sheet

MIXING PROCEDURE	Add the entire contents of Part B into the Part A pail, there is enough space to combine both parts in the Part A container. Mix the two parts together thoroughly for 3 minutes, using a mechanical stirrer on a low speed of 200rpm - 400rpm, making sure to scrape the base and corners of the pail. Do not move the mixer up and down. Once 3 minutes is up, scrape the sides of the pail with a straight edge to remove unmixed Part A from the sides of the pail. Do not use the mixer head to scrape the sides. Mix for another 2 minutes, if there is a ring of Part B around the edge of the pail, lift the mixer slightly and lean the mixer back approximately 30°, this will change the resin flow and should pull the Part B into the mix. Ensure the mixture is thoroughly mixed, this is essential, as incomplete mixing will result in poor physical properties. Megapoxy Deep Pour Grout must be applied immediately after mixing. If ambient temperature is high, Megapoxy Deep Pour Grout should be stored in a cool place until used. High ambient temperatures will lead to shortened usable life. Topping up can be carried out at a later date when convenient. If you do not require adhesion of the Megapoxy Deep Pour Grout, form work surfaces should be coated with Megapoxy Wax or silicone based release agent.
IMPORTANT INFORMATION	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.
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 Deep Pour Grout Safety Data Sheet.
PACKAGING	Megapoxy Deep Pour Grout is available in 23kg kits. (approx. 14lts)
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.

Your support network

Our network of stockists and distributors are there to support you, wherever you are.

Australia / New Zealand / Asia-Pacific / Europe / Middle East / South America

Contact us

Need advice or help? We're here to make it easier to succeed.

Stockist and distributors near you:
visit megapoxy.com/distributors

Phone: +61 (02) 9875 3044

Email: info@megapoxy.com

Megapoxy®