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

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

Revision 5, 19-12-2025, Megapoxy 206 Ultra

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.