

Heavy Duty Epoxy Grout for Use in High Temperatures

Technical Data Sheet

DESCRIPTION	<p>Megapoxy 57 Slow is a high strength, pre-filled, solvent free epoxy grout designed for applications in higher temperature conditions and for deep casting situations. The product can also be extended with suitable aggregate such as an epoxy grade sand, up to equal parts resin to aggregate ratio by volume to suit individual application conditions.</p> <p>Megapoxy 57 Slow has a high flow rate and can be applied into narrow gaps down to 4mm if the application requires so. This product will achieve a very high bond strength, compressive strength, flexural strength and tensile strength with extremely low exothermic reaction and shrinkage.</p> <p>Megapoxy 57 Slow has a very high resistance to chemicals allowing it to be used for machinery in chemical processing plants. When used with an aggregate, Megapoxy 57 Slow can be poured up to 80mm thick which is far more economical than pouring in stages.</p>																																					
RECOMMENDED APPLICATIONS	<ul style="list-style-type: none">• Bridge Bearing Pads• Rail Track Grouting• Locking Bearings• Grouting Machinery• Setting Anchor Bolts• Chocking of Machinery																																					
PROPERTIES	<table><tr><td>Mixing Ratio by Volume</td><td>Mix complete kit</td></tr><tr><td>Worktime at 25°C</td><td>60 minutes</td></tr><tr><td>Work Time at 35°C:</td><td>30 minutes</td></tr><tr><td>Initial Cure Time at 25°C:</td><td>12 hours</td></tr><tr><td>Initial Cure Time at 35°C</td><td>8 hours</td></tr><tr><td>Initial Cure Time at 45°C</td><td>3 hours</td></tr><tr><td>Minimum Cure Time at 15°C</td><td>48 hours</td></tr><tr><td>Minimum Cure Time at 25°C</td><td>36 hours</td></tr><tr><td>Minimum Cure Time at 35°C</td><td>24 hours</td></tr><tr><td>Viscosity Part A at 25°C</td><td>35,000 - 50,000cps</td></tr><tr><td>Viscosity Part B at 25°C</td><td>600 - 900cps</td></tr><tr><td>Mixed Viscosity at 25°C</td><td>6000-8000cps</td></tr><tr><td>S.G. Part A at 25°C</td><td>1.66 - 1.72</td></tr><tr><td>S.G. Part B at 25°C</td><td>0.95 - 0.98</td></tr><tr><td>Mixed S.G. at 25°C</td><td>1.51</td></tr><tr><td>Colour Part A</td><td>Yellow</td></tr><tr><td>Colour Part B</td><td>Amber</td></tr><tr><td>Appearance Mixed</td><td>Yellow</td></tr></table>		Mixing Ratio by Volume	Mix complete kit	Worktime at 25°C	60 minutes	Work Time at 35°C:	30 minutes	Initial Cure Time at 25°C:	12 hours	Initial Cure Time at 35°C	8 hours	Initial Cure Time at 45°C	3 hours	Minimum Cure Time at 15°C	48 hours	Minimum Cure Time at 25°C	36 hours	Minimum Cure Time at 35°C	24 hours	Viscosity Part A at 25°C	35,000 - 50,000cps	Viscosity Part B at 25°C	600 - 900cps	Mixed Viscosity at 25°C	6000-8000cps	S.G. Part A at 25°C	1.66 - 1.72	S.G. Part B at 25°C	0.95 - 0.98	Mixed S.G. at 25°C	1.51	Colour Part A	Yellow	Colour Part B	Amber	Appearance Mixed	Yellow
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CURED PROPERTIES	Maximum Operating Temperature	80°C
	Compressive Strength - ASTM 695-96	95MPa
	Bond Strength Concrete - ASTM 454	>3MPa (Concrete Failure)
	Modulus of Elasticity - ASTM 695	4.9GPa
	Tensile Strength ASTM D638	26MPa
	Hardness - Barcol 935	85 at 25°C
	Dielectric Strength 50HZ, 25°C	17Kv per mm
MIXING PROCEDURE	<p>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. Mix the two parts together thoroughly for at least 3 minutes by hand or using a mechanical stirrer on a low speed of 200rpm or lower. Ensure the mixture is thoroughly mixed and the two parts are combined into a uniform colour. This is essential as incomplete mixing will result in poor physical properties.</p> <p>When using an aggregate, slowly pour the aggregate into the mixed material whilst still mixing with a mechanical stirrer. Be cautious not to incorporate air into the mixture. Continue to mix and add aggregate until the desired consistency is reached and you have a uniform epoxy mortar.</p>	
SURFACE PREPARATION	<p>General Surfaces</p> <p>Good adhesion can only be achieved if proper pre-treatment of surfaces to be bonded is carried out. With the exception of concrete, surfaces should be degreased, grit blasted or mechanically abraded and degreased again to ensure no surface contaminants are present. Wire brushing is not an adequate surface preparation and will produce poor adhesion.</p> <p>Concrete Surfaces</p> <p>For concrete surfaces you may need to prepare the surface more thoroughly. The surface should be free of grease, oil and other contaminants. If necessary, clean with industrial grade degreasing agent. Once clean, steps must be taken to remove surface laitance. This is best achieved by grit blasting. Alternatives are mechanical abrasion such as diamond grinding.</p> <p>Formwork</p> <p>The formwork used when pouring Megapoxy 57 Slow must be made of a strong, non-porous material and constructed to contain sufficient Megapoxy 57 Slow grout without leaking. Install adequate vent holes or bleed hoses to ensure no air is trapped beneath the surface, resulting in a weak substrate. Ensure you use a wax based release agent to sufficiently coat the formwork to prevent the epoxy grout adhering to the formwork.</p> <p>Application</p> <p>Once the surface is prepared and the product mixed, Megapoxy 57 Slow epoxy grout shall be applied immediately following the mixing process. Apply the grout by pouring for one side of the void only, this is to avoid the entrapment of air. Pour with a continuous flow of grout with enough material to fill the entire void. An adequate head must be maintained at all times for a continuous flow. A funnel or header box is usually sufficient for this purpose, however pumping may be possible with the right equipment. The grout must be poured until the grout rises above the bottom of the base plates.</p> <p>Thickness</p> <p>The typical thickness range of Megapoxy 57 Slow at 25°C in one pour is 5-30mm. If greater thicknesses are required the grout should be bulked out using aggregates, or by making multiple pours less than 30mm in thickness. For large pours up to 80 mm thick you can use clean dry Quartz Silica Sand at grades of 1-2mm as described.</p>	

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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.
PACKAGING	Megapoxy 57 Slow is available in 9.4kg kits which equates to 6.2 Litres when mixed. In each kit Part "A" and Part "B" are measured in the correct mixing ratio for immediate use.
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.