Megapoxy

57

Heavy Duty Grout

Technical Data Sheet

DESCRIPTION

Megapoxy 57 is a high strength, pre-filled, solvent free epoxy grout designed 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.

Megapoxy 57 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. Megapoxy 57 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 can be poured up to 80mm thick which is far more economical than pouring in stages.

RECOMMENDED APPLICATIONS

- Grouting Machinery
- Locking Bearings
- Setting Anchor Bolts
- Chocking of Machinery
- Rail track grouting
- Bridge Bearing pads

PROPERTIES

Mixing Ratio by Volume	Add entire contents of Part B container into Part A container
Work Time at 35°C	15 minutes
Work Time at 25°C	30 minutes
Work Time at 15°C	60 minutes
Initial Cure Time at 35°C	3 hours
Initial Cure Time at 25°C	6 hours
Initial Cure Time at 15°C	12 hours
Minimum Cure at 35°C	12 hours
Minimum Cure Time at 25°C	24 hours
Minimum Cure Time at 15°C	48 hours

MIXING PROCEDURE

1. Seal all crevices with Megapoxy PF (rapid set putty), so that grout mixture does not leak out.
2. Stir Megapoxy 57 part “A” first. Add Megapoxy 57 part “B” slowly with continual mixing.
3. Using a low speed electric drill mix until uniform Green appearance, approximately 5 minutes.
4. Megapoxy 57 must be used immediately after mixing.
5. If ambient temperature is high, Megapoxy 57 should be stored in a cool place until used. High ambients will lead to shortened usable life.
6. Topping up can be carried out at a later date when convenient.
7. If adhesion is not required, formwork surfaces should be coated with Wax or grease based release agent.
8. Allow Megapoxy 57 to harden before applying stress.

Technical Data Sheet

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

SURFACE PREPARATION

General Surfaces

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.

Concrete Surfaces

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.

Formwork

The formwork used when pouring Megapoxy 57 must be made of a strong, non-porous material and constructed to contain sufficient Megapoxy 57 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.

Application

Once the surface is prepared and the product mixed, Megapoxy 57 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.

Thickness

The typical thickness range of Megapoxy 57 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.

PRODUCT SPECIFICATION

	PART "A"	PART "B"	Mixed
Colour	Yellow	Blue	Green
Viscosity at 25°C	35,000 - 50,000 cps	600 - 900 cps	6000 - 8000 cps
Specific Gravity	1.66 - 1.72	0.95 - 0.98	1.51
Flash Point	Above 200ºC	Above 200ºC	N/A
Shelf Life	2 years	2 years	N/A

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.
PACKAGING	Megapoxy 57 Heavy Duty Grout is available in 9.4 kg kits (6.2 Litres) and 16 litre kits. Megapoxy PF rapid set putty is available in 4 & 20 litre kits. **Kit Size:** 7.9 kg Part A 1.5 kg Part B **Weight Total:** 9.4 kg (6.2 Litre)
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.