

MasterFlow 618

Heavy duty epoxy resin grout

Material Description

MasterFlow 618 is a solvent-free rapid hardening, high strength grout, based on modified epoxy resin and is designed for use as a precision, heavy duty chocking grout for engineering applications. It is supplied as a two component system consisting of epoxy resin, combined with inert fillers and the hardener, to produce a high viscosity flowable liquid grout.

Areas of Application

- Machinery with high dynamic loads and vibration.
- Backing of steel liners of ore crushing machinery in mines and quarries.
- In corrosive environments where chemicals, oils and solvents make cementitious grouts unsuitable.
- Production line equipment that must resume operations with minimum downtime.
- Machinery base plates, crane rails, anchor bolts hold down bolts and heavy equipment where tensile strength greater than cementitious systems can provide are required.

MasterFlow 618 is not recommended where the temperature of the grout after mixing and placing cannot be maintained above 15°C for a period of 48 hours to achieve full cure. Where a maximum thickness is greater than 50 mm; then additional aggregate may be incorporated (refer to Master Builders Solutions); Do not use where upper operating temperature is in excess of 100°C.

Characteristics and Benefits

- Resistance to vibration and impact – particularly applicable where cycles of compression/ tension make cementitious grouts unsuitable.
- Minimum shutdown – high early and ultimate strengths.
- Excellent chemical resistance – maximum protection against attack from mineral acids, oils, fats, fuels, and strong alkali and salt solutions and lubricating and hydraulic oils.
- High bond strength – tenacious adhesion to prepared surfaces.

- Supplied in pre-measured kits – eliminates the need for complicated on-site measuring and ensured product performance.

Properties

Compressive strength development (50mm cubes)

Age	23°C
6 hours	65 MPa
8 hours	75 MPa
24 hours	80 MPa

Typical test results (after 7 days cure at 23°C ± 2°C)

Compressive Strength (ASTM D 695)	90 MPa
Flexural Strength One day	25 MPa
Bond Pull-out	Concrete failed at 2.9 MPa
Gel Time @ 23°C	90 minutes
Setting time @ 23°C	100 minutes

The performance data is typical and based upon controlled laboratory conditions. Actual performance on the job site may vary from these values based on actual site conditions.

Supply Form	
Part A	White Viscous Paste
Part B	Dark blue Heavy Liquid
Mixed	Blue Liquid
Viscosity	30 Pa.s
Density	1690 kg/m ³
Thickness	Min 5mm Max 50mm without aggregate

Pot life

Pot life will vary. As a guide, the pot life of a 10 kg kit, mixed at 23°C would be approximately 30 minutes.



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Application

For information about application, please obtain a copy of the "Application Guide for Masterflow Epoxy Grouts" from your local representative. **MasterFlow 618** is formulated with a mix ratio of 5:1 by volume, Part A resin to Part B hardener. Units may be split but it is essential to maintain the correct ratio of Part A to Part B.

The mix ratio by weight is 10:1 resin to hardener. Remove rim from Part B tin to ensure complete removal of contents. Transfer contents of Part B to Part A container. Mix for 3 minutes using a slow speed electric drill with a flat paddle. Avoid entrapping air. Use without delay.

Estimating Data

MasterFlow 618 is available in a two-component kit of 10 kg which yields (when mixed) 5.9 litres.

MasterFlow 618				
L	Thickness in mm /m ²	m ³	kits /m ³	m ² /mm thickness
5.9	5.9mm	(0.0059)	169	5.9 m ²

Curing

No damp curing or special curing compounds are required. Cure time will vary depending on quantity mixed and placed and ambient temperature. Initial set at 23°C will be in 100 minutes. MasterFlow 618 will be fully cured with maximum physical strength and chemical resistance at 7 days at 23°C. Do not install equipment before full cure has been attained or creep may occur. Note: Curing rates and strength gain are retarded at lower temperatures - curing will not occur below 5°C.

Packaging

Two-component system available in 10kg kit comprising Part A Resin (9.1 kg) + Part B Hardener (0.9 kg).

Storage & Shelf Life

MasterFlow 618 has a shelf life of 24 months if stored unopened in original containers at moderate temperatures.

Precautions

For the full health and safety hazard information and how to safely handle and use this product, make sure that you obtain a copy of the Safety Data Sheet (SDS) from our office or website.

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Disclaimer

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STATEMENT OF RESPONSIBILITY

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NOTE

Field service where provided does not constitute supervisory responsibility. Suggestions made by MB Solutions Australia Pty Ltd either orally or in writing may be followed, modified or rejected by the owner, engineer or contractor since they, and not MB Solutions Australia Pty Ltd, are responsible for carrying out procedures appropriate to a specific application.

MB Solutions Australia Pty Ltd

ABN 69 634 934 419
 Unit 102, 2 Burbank Place
 Norwest NSW 2153

Freecall: 1300 227 300

www.master-builders-solutions.com/en-au

MB Solutions New Zealand Ltd

45C William Pickering Drive
 Albany, Auckland
 New Zealand

Phone: +64 9 414 7233

Emergency Advice:

1300 954 583 within Australia (24hr)
 0800 001 607 within New Zealand

