MasterFlow® 415

High early strength, high flow epoxy grout

DESCRIPTION

MasterFlow 415 is a high-performance non-shrink, epoxy grouting material for installation of rails and heavy equipment to ensure the proper transmission of static and dynamic loads to the foundations. **MasterFlow 415** is suitable for an application thickness range of 20-100mm

RECOMMENDED USES

The gas transmission industry made **MasterFlow 415** the industry standard for grouting large compressors as well as other equipment.
Application includes rail on concrete installations
The steel industry selects **MasterFlow 415** series grout for foundations under crushers, ball mills, rod mills slab tables, scale breakers, bolt pockets, and other heavy equipment. The mining, power, pulp and paper, and chemical industries are also successfully using **MasterFlow 415** grout in a variety of applications. High strength, low creep, and good chemical resistance spell a multitude of uses for **MasterFlow** Grouts.

MasterFlow Grouts are essential wherever precise permanent alignment of machinery is required.

ADVANTAGES

MasterFlow 415 is a three-component system that includes a two-part epoxy resin and carefully blended aggregate. At elevated temperatures, **MasterFlow 415** provides excellent resistance to creep, high compressive strength, modulus of elasticity and excellent resistance to cracking. This product also produces a high percentage of bearing surface, and good adhesion to steel and concrete. Critical machinery alignment is assured because of its excellent resistance to creep and high temperature compressive strength.

When installation conditions vary, the handling properties of **MasterFlow 415** can be optimised by adjusting the amount of aggregate used.
MasterFlow 415 is resistant to oil, synthetic lubricants, water and most chemicals, and cures quickly which means equipment can return to service much sooner.

PACKAGING

MasterFlow 415 is available as a 29.9kg unit.

Part A Base – 3.73kg
Part B Hardener – 1.17kg
Part C Aggregate – 25kg

TYPICAL PROPERTIES*

Compressive strength @30°C - ASTM C579 Method B, (Modified 50mm cubes) 1 days 7 days	 >75 N/mm² >90 N/mm²
Flexural strength @25°C - ASTM C580	>25 N/mm²
Tensile strength @25°C - ASTM C307	>15 N/mm²
Density ASTM C905	1.82 kg/m³
Working time @ 25°C	60 mins

APPLICATION GUIDELINES

CONCRETE PREPARATION AND SEALING

The concrete surface must be scabbled so that large aggregate is exposed to ensure removal of all laitance and weak surface material. New concrete should have a compressive strength of at least 20 MPa; greater strength is preferred. THE CONCRETE SURFACE MUST BE CLEAN AND DRY WHEN THE GROUT IS POURED. The concrete areas to be grouted should not be primed or sealed.
Ungrouted exposed concrete surfaces may be sealed to prevent oil penetration.

METAL PREPARATION AND PRIMING

Base plates or rails and other metal surfaces to be grouted should be cleaned to obtain proper adhesion. This is preferably done just prior to grouting. Primer should be used ONLY when a long delay between cleaning and grouting will allow rusting or contamination.
Surfaces where a bond is not desired should be protected with heavy coats of wax.

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FORMING

MasterFlow 415 is fluid and requires forms. Forms are generally wood, the same as used for forming concrete. They should be of sufficient strength, anchored or braced to withstand pressure from the grout and must be "liquid tight".

CURE TIME VS. TEMPERATURE

Cure time of the grout will depend upon the temperature of the base and foundation rather than the ambient air temperature. Unless the ambient air temperature has been constant for several days the base / foundation temperature will generally be lower than air temperature. Cured grout should have solid, almost metallic ring when struck lightly with a hammer, checking as close to the base as possible.

NOTE

Physical properties are affected by fill ratio and cure temperature. At temperatures below 25°C the following guidelines are recommended:

- Mix and apply grout in the warmest part of the day.
- Store grout materials in a warm environment.
- Maintain a minimum mixed temperature of 25°C.

FINISHING AND CLEAN UP

A smooth finish may be obtained by spraying or brushing the surface with a suitable Xylene thinner approximately 1 hour after the grout is poured. Best results can be obtained by smoothing the surface several times just prior to the hardening of the grout surface. Clean tools and mixer with a suitable thinner (Xylene / MEK / Acetone).

COVERAGE / YIELD

16.4 litres

HEALTH AND SAFETY

MasterFlow 415 is a three-component epoxy grout formulated for industrial and professional use only and must be kept out of the reach of children. These products contain chemicals which may be COMBUSTIBLE and potentially HARMFUL to your health if not stored and used properly. Hazards can be significantly reduced by observing all precautions which are found on material safety data sheets, and product labels. Please read this literature carefully before using product.

QUALITY AND CARE

All products originating from Master Builders Solutions Dubai, UAE facility are manufactured under a management system independently certified to conform to the requirements of the quality, environmental and occupational health & safety standards ISO 9001 and ISO 14001.

* Properties listed are based on laboratory controlled tests.

® = Registered trademark of the MBCC Group in many countries.

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