

MasterFlux 200RMX (formerly BluCem RMX HS200)

Post-tension cable ready mix grout

Material Description

MasterFlux 200RMX is a high-strength, ultra-flow cementitious grout delivered pre-mixed in concrete agitators for efficient application in civil engineering projects. Free from alluminate, metallic expansion agents, and methocel-based additives, it is designed for protection of high tensile steel elements. Incorporating advanced superplasticisers and suspension agents, it ensures full encapsulation in critical applications like post-tension cable grouting, preventing bleed, segregation, and voids.

Areas of Application

MasterFlux 200RMX is specifically designed for critical applications such as:

- Post-tensioned cable duct grouting
- Ground anchor grouting
- Soil nail grouting

Characteristics and Benefits

- Ready-mix ultra-flow grout – delivered in concrete agitators for immediate on-site use.
- High-strength & pumpable – suitable for demanding civil engineering applications.
- Zero bleed & no segregation – ensures complete encapsulation and void-free application.
- Long workability – remains fluid and pumpable for several hours.
- Aggregate-free formulation – provides high flowability without clogging ducts.
- Advanced additive technology – free of aluminates, metallic expansion agents, methocel, and ligno-sulphonates.
- NSW TfNSW approved – meets stringent infrastructure specifications.
- Simplified application – no on-site mixing required, reducing labor and errors.
- Enhanced durability – protects high-tensile steel elements from corrosion and environmental degradation.

- Rapid strength development – accelerates construction schedules with early strength gain.
- Reliability in critical applications – prevents bleed water and segregation, ensuring structural integrity.

Properties

Tested Characteristic / Standard	Result*		
Post Tensioning Requirements RMS R64	Complies		
Compressive strength AS 1478.2- Appendix A	Water %		
	30%	33%	36%
24 hours: MPa	40	30	20
7 days: MPa	90	80	70
28 days: MPa	100	90	80
Bond Strength (by pull off)	0.5 - 1.0MPa unprimed concrete 0.8 - 1.5MPa primed concrete		
Chloride Content AS 1012.20	<0.01%		
Expansion ASTM C940	<0.2% @ 30% water		
Change in Height ASTM C1090	<0.18% @ 28 days		
Bleeding ASTM C940	Zero @ 30% water		
Setting Time AS 1012.18	Initial set – 240 minutes Final set – 300 minutes		
Fresh Wet Density AS 1012.5	2100kg/m ³ @ 30% water 2000kg/m ³ @ 36% water		
Flow Characteristics AS 1478.2 Appendix C	5-20 seconds (flow cone)		
Change in Flow Characteristics AS 1478.2 Appendix C	<3.0 seconds change in 45 minutes		
Modulus of Elasticity AS 1012.17	22.4 GPa		

* The values shown in this table are based upon laboratory testing using a typical GP Cement added to MasterFlux 200RMX.

Note that results will vary depending upon the source, quality and age of cement used in the blend. All results shall be verified on site prior to commencement.

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Application Properties	Results
Application thickness	Refer to Master Builders Solutions for advice and approval on pour thicknesses with dimensions exceeding 250mm
Pump life	60 - 120 minutes@ 20°C
Maximum particle size	45 microns

Application

For information about application, please obtain a copy of the "Cementitious Grouts MasterFlux range" application guide from your local Master Builders Solutions Technical Sales Representative or download a copy from the website. MasterFlux 200RMX may be poured or pumped into place. to sit then it will 'gel' and may become difficult to pump. Once the site is ready for grout placement, commence pumping. It is important to pump continuously and avoid the formation of cold joints.

Application Temperatures

The mix water's temperature should be kept as low as possible to prevent the grout from hydrating too rapidly. As with the water temperature, the higher the air temperature the more quickly the grout hydrates and sets. Master Builders Solutions specify mixing times and set times at an ambient temperature of 20°C. These times vary with temperature fluctuations, and adjustments will be required to compensate for this.

Exposing the pumping hoses to the sun on a hot day accelerates the product's set time. In some cases it may be necessary to cool the material, the mix water, or even the hose itself during the process and pre-planning the storage of all materials to keep the temperature as low as possible.

High-shear mixing can add 1 to 2°C per minute of mixing. In order to minimise this effect, add all ingredients to the mixer as quickly as possible and minimise prolonged batch-mixing procedures.

Packaging

MasterFlux 200RMX is delivered to site as wet mix per m³.

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.

Specification Clause

PT Cable Grout - the ultra flow cementitious grout used for this project shall be a ready mix grout mixed and batched at a concrete plant delivered in concrete agitators ready to use on site. The product must have independent testing to validate the performance outlined in the technical data table on the following pages. MasterFlux 200RMX manufactured by Bluey Technologies or equivalent shall be accepted.

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Disclaimer

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STATEMENT OF RESPONSIBILITY

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