

MULTIMORTAR 840 M

Fatigue Resistant Metallic Aggregate High Strength Non-Shrink Mortar

Specification Type

Meets requirements of CRD-C621 ASTM C 109-80, CRD-C 222-79 and CRD C 226-78 specifications

Description

MULTIMORTAR 840 a pre-mixed blend of specially selected and graded metallic and siliceous aggregates, shrinkage compensating and controlled chemicals, blended with cementitious powders to produce a catalyzed non-shrink mortar.

Advantages

- * Fatigue Resistance - the inclusion of metallic aggregate provides greater fatigue resistance thus producing a durable and dense mortar.
- * Non-Shrink - a dense mortar that hardens free of bleeding settlement or drying shrinkage
- * High Early Strength - provides high early and ultimate anchorage bond pull-out and shear strength for 2.6 MPa in smooth bars / rods to over MPa around deformed reinforcing bars in steel sleeves and precast members.
- * Pumpable Consistency - when mixed at a fluid consistency the mortar will provide high mobility through narrow passages and small clearances assuring volume stability without gas bloating.
- * Reliability - premixed high quality mortar thus eliminating problems frequently experienced with site blended materials.

Typical Applications

- * Grouting splicing reinforcing bars in sleeves and construction joints
- * Grouting between in-place precast concrete members
- * Splicing reinforcing bars when extending concrete columns and piles, ect
- * Grouting of anchor bolts, rods and re-bars in concrete where clearances are minimal, i.e. between 10-15mm

Typical Properties

Stiffening Test:

Initial Set:	Approximately 45 minutes at 20°C
Final Set:	Approximately 4 hours at 20°C
Operating Temperatures:	Between 120°C to 180°C. Permissible for use with equipment exposed to these temperatures
Strength Characteristics:	Refer table 1 on page 119
Storage Life:	Up to 1 year when stored under cover and in dry conditions

Directions for Use

An evenly scabbled, slightly textured surface is required with all dust, dirt, grease and oil removed. Surface must be pre-wetted for 24 hours to thoroughly dampen the concrete and any free surface water must be removed prior to grouting. All surfaces in contact with the mortar must be sound, dense and clean.

Note: Water demands must be verified on site as environmental and placing conditions can influence grout / water requirements.

Hot and Cold Temperature

Temperatures of both the grout and all elements coming into contact with the grout should be in the range of 15°C-26°C. Do not grout in freezing conditions. If outside this range special information of high and low temperature grouting suggestions are available from your local MCC LIMPOPO's Field Representative.

Curing

As soon as the exposed surfaces are sufficiently firm, cure with MULTICURE 300 C. During very hot or cold weather protect against temperature extremes during the curing period, wet hessian for the former and plastic for the latter.

Watchpoints

- * Site and laboratory test should be determined on desired placing consistency rather than strictly on the water content. This must be established prior to placing the grout.
- * Always place grout from one side only. Do not pour grout from both sides as this will result in entrapment of air seating a gap (air pocket) between the underside of the base plate and grout. Do not use contaminated water or water in an amount or at a temperature that will produce the bleeding, segregation, delayed hardening and low strengths.
- * For fatigue and impact resistant grouting, use MULTIGROUT 802-M Metallic Aggregate non-shrink Grout.
- * Bulk Grouting - whenever the thickness of grout is in excess of 100mm use MULTIGROUT 820 MP, recommended for bulk grouting.

Not Recommended

- * Where mortar is in contact with aluminium magnesium, high stressed / pre-stressed or post tensioned bolts, anchorages and tendons.
- * Where precision grouting of heavy duty machinery, crane rails, ect are exposed to repetitive operating forces and loadings (use MULTIGROUT 802 M)
- * For use where mortar is not vertically confined

Yield

Once 25kg bag of MULTIMORTAR 840M when mixed with 3 litres of water will yield approximately 10 litres (100 x 25kg bags per m3)

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Specification Clause

All grouting shall be carried out where indicated using MULTIMORTAR 840 M non-shrink fluid and high ultimate strength grouts as manufactured by MCC LIMPOPO to the following specification:

- * To comply with CRD-C621, CRD C 266-78 and ASTM C 109-80 specifications
- * The mortar shall be mixed and used strictly in accordance with the manufacturer's recommendations

Quality Assurance

MCC LIMPOPO's production and testing programmes comply with all local and international standards. These stringent requirements must also comply with CRD-C 621, ASTM C 109-80, CRD-C 222-79 and CRD-C 226-78 specifications.

Updates

This data sheet supersedes all previous issues prior to this date:
31/05/97