

03 30 00	Cast-in-Place Concrete
03 37 13	Shotcrete
03 40 00	Precast Concrete
03 70 00	Mass Concrete

MasterFiber[®] M 080

Synthetic Monofilament Microfiber

Description

MasterFiber M 080 product is a monofilament polypropylene fiber manufactured from 100% virgin homopolymer polypropylene resins.

MasterFiber M 080 product complies with ASTM D7508/D7508M "Standard Specification for Polyolefin Chopped Strands for Use in Concrete" and can be used in producing Type III Synthetic Fiber-Reinforced Concrete meeting the requirements of ASTM C1116/C1116M "Standard Specification for Fiber-Reinforced Concrete". MasterFiber M 080 product is specifically engineered to reduce the plastic shrinkage cracking and control fire-induced explosive spalling of concrete.

Applications

Recommended for use in:

- Tunneling
- Precast products
- Shotcrete
- Residential slabs-on-ground
- Commercial slabs-on-ground
- Stucco

Features

- 325 million 0.25-in. (6-mm) fibers in one pound (0.45 kg) of product
- Uniform distribution throughout the concrete
- Excellent finishability

Benefits

- Excellent reduction in plastic shrinkage cracking
- Reduces fire-induced explosive spalling of concrete when used at appropriate dosages
- Performs as an excellent companion in blends with synthetic macrofibers and steel fibers

Performance Characteristics

Physical Properties

Specific Gravity	0.91
Melting Point	320 °F (160 °C)
Ignition Point	1,094 °F (590 °C)
Absorption	Nil
Alkali Resistance	Excellent
Length	0.25 in. (6 mm)
Equivalent Diameter	0.0007 in. (18 microns)
Denier	2.1 dpf

Guidelines for Use

Dosage: The dosage of MasterFiber M 080 product is 0.5 to 5.0 lb/yd³ (0.3 to 3.0 kg/m³) depending on specifications, applications and local practices. The typical dosages are in the range of 0.5 to 0.75 lb/yd³ (0.3 to 0.45 kg/m³) for plastic shrinkage cracking, and 1.7 to 3.5 lb/yd³ (1 to 2 kg/m³) to control explosive spalling in a fire event.

Mixing: Typically, no modifications to the concrete mixture proportions are required when the product is used at the dosage of 0.5 to 0.75 lb/yd³ (0.3 to 0.45 kg/m³) and standard mixing and finishing practices are followed. Mixture optimization to ensure an adequate paste content is recommended at the fiber dosage levels required to control explosive spalling in a fire event. Please contact your local Master Builders Solutions sales representative for assistance.

The MasterFiber M 080 product can be introduced into the mixer at any time except when the cement is being introduced. Mixing time will vary based on when the fibers are introduced to the mixer. The normal range is 3 to 5 minutes of mixing, with the higher number preferred when the fibers are added after all of the standard ingredients have been introduced and mixed.

Product Notes

MasterFiber M 080 product is not a replacement for structural steel reinforcement and therefore, should not be used to replace any of the load-carrying steel reinforcement in a concrete element. MasterFiber M 080 product is compatible with admixtures and additives that meet the appropriate ASTM specifications.

Packaging

MasterFiber M 080 product is packaged in pre-weighed 2.2 lb (1.0 kg) degradable bags to ensure optimum dosing and homogeneous distribution of the product.

Related Documents

Safety Data Sheets: MasterFiber M 080 product

Additional Information

For Additional information on MasterFiber M 080 product contact your local sales representative.

Master Builders Solutions creates technologies for the construction industry inspiring people to build better. We are active in ~40 countries and operate 35 production sites with over 1,600 employees. We develop, produce, and market high-quality chemical admixtures, as well as adjacent core technologies, to master the challenges of today and support a decarbonized future. Our people are pivotal and pair leading technologies and a strong brand heritage to surpass our customers' expectations and drive continuous value creation.

Limited Warranty Notice

Master Builders Solutions Admixtures US, LLC ("Master Builders Solutions") warrants this product to be free from manufacturing defects and to meet the technical properties on the current Technical Data Guide, if used as directed within shelf life. Satisfactory results depend not only on quality products but also upon many factors beyond our control. MASTER BUILDERS SOLUTIONS MAKES NO OTHER WARRANTY OR GUARANTEE, EXPRESS OR IMPLIED, INCLUDING WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE WITH RESPECT TO ITS PRODUCTS. The sole and exclusive remedy of Purchaser for any claim concerning this product, including but not limited to, claims alleging breach of warranty, negligence, strict liability or otherwise, is shipment to purchaser of product equal to the amount of product that fails to meet this warranty or refund of the original purchase price of product that fails to meet this warranty, at the sole option of Master Builders Solutions. Any claims concerning this product must be received in writing within one (1) year from the date of shipment and any claims not presented within that period are waived by Purchaser. MASTER BUILDERS SOLUTIONS WILL NOT BE RESPONSIBLE FOR ANY SPECIAL, INCIDENTAL, CONSEQUENTIAL (INCLUDING LOST PROFITS) OR PUNITIVE DAMAGES OF ANY KIND.

Purchaser must determine the suitability of the products for the intended use and assumes all risks and liabilities in connection therewith. This information and all further technical advice are based on Master Builders Solutions' present knowledge and experience. However, Master Builders Solutions assumes no liability for providing such information and advice including the extent to which such information and advice may relate to existing third party intellectual property rights, especially patent rights, nor shall any legal relationship be created by or arise from the provision of such information and advice. Master Builders Solutions reserves the right to make any changes according to technological progress or further developments. The Purchaser of the Product(s) must test the product(s) for suitability for the intended application and purpose before proceeding with a full application of the product(s). Performance of the product described herein should be verified by testing and carried out by qualified experts.