

3	03 30 00	Cast-in-Place Concrete
32	03 40 00	Precast Concrete
	32 13 13	Concrete Paving

MasterFiber[®] MAC 244

Synthetic Macrofiber

Description

MasterFiber MAC 244 product, a synthetic macrofiber, is manufactured from a proprietary blend of polypropylene resins, in compliance with ASTM D7508/D7508M "Standard Specification for Polyolefin Chopped Strands for Use in Concrete". MasterFiber MAC 244 product 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 MAC 244 product also meets the requirements of CSA B66-21 "Design, material, and manufacturing requirements for prefabricated septic tanks and sewage holding tanks."

Applications

Recommended for use in:

- Industrial and warehouse floors
- Pavements
- Residential and commercial slabs-on-ground
- Mass concrete
- Thin walled-precast
- Whitetopping/Overlays
- Composite Metal Deck

Features

MasterFiber MAC 244 product is engineered for use as secondary reinforcement to control shrinkage and temperature cracking, and settlement cracking. MasterFiber MAC 244 product was created specifically to replace welded-wire reinforcement (WWR) and reinforcing bars that are typically used as temperature and shrinkage reinforcement.

MasterFiber MAC 244 product has the following features:

- Uniform distribution throughout the concrete matrix
- Excellent flexural performance
- Excellent finishability
- Improved green strengths
- Alkali resistant and rust proof

Benefits

- Eliminates the need for welded-wire reinforcement and reinforcing bars used as secondary reinforcement, depending on the application
- Effective tight crack control
- Provides excellent control of settlement cracking
- Permits earlier stripping of forms with less rejection
- Reduces construction time and overall labor and material costs
- Reduces the effects of handling and transportation stresses
- Increases flexural toughness, impact and shatter resistance

Performance Characteristics

Typical Physical Properties

Specific Gravity	0.91
Melting Point	300 – 340 °F (150 – 170 °C)
Ignition Point	660 °F (350 °C)
Absorption	Nil
Alkali Resistance	Excellent
Tensile Strength	72.5 ksi (500 MPa)
Length	1.5 in. (40 mm)
Aspect Ratio	57

Guidelines for Use

Dosage: For most applications, the typical recommended dosage will be in the range of 3 to 7.5 lb/yd³ (1.8 to 4.5 kg/m³). However, depending on the specific application, a higher dosage may be recommended by Master Builders Solutions.

Mixing: MasterFiber MAC 244 product is packaged in pre-weighed, ready-to-use, watersoluble pucks in degradable bags which are designed to be introduced at any time before or during mixing of concrete produced in accordance with the procedures specified in ASTM C94/C94M "Standard Specification for Ready-Mixed Concrete".

Suggested Specification Language

Synthetic macrofiber: Polyolefin macrofibers engineered and designed for use in making fiber-reinforced concrete complying with ASTM C1116/C1116M, Type III; MasterFiber MAC 244 fiber by Master Builders Solutions.

Storage and Handling

Storage Temperature: MasterFiber MAC 244 product should be stored in a clean, dry area at temperatures below 140 °F (60 °C). Avoid storing near strong oxidizers and sources of ignition. Use caution when stacking to avoid unstable conditions. Store in a sprinkled warehouse.

Packaging

MasterFiber MAC 244 product is packaged in pre-weighed degradable 4-lb (1.8-kg) bags that can be added directly to the mixing system.

Related Documents

Safety Data Sheet: MasterFiber MAC 244 product

Additional Information

For additional information on the MasterFiber MAC 244 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.



MasterFiber MAC 244 fiber, as marketed by Master Builders Solutions, is classified by Underwriters Laboratories Inc. for use in the following fire rated assemblies: UL D700, D800, D900, G555 and G589 Series Designs. Fibers to be added to the concrete mix at a maximum rate of 5.0 lb of fiber for each cubic yard (3.0 kg/m³) of concrete.

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.

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

Master Builders Solutions Admixtures US, LLC

23700 Chagrin Boulevard
Beachwood, Ohio, 44122-5544
USA ■ 800-628-9990

Master Builders Solutions Canada, Inc.

1800 Clark Boulevard
Brampton, Ontario L6T 4M7
CANADA ■ 289-360-1300