

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 B66-10 “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

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, a brand of MBCC Group, is a global leader of innovative chemistry systems and formulations for construction, maintenance, repair and restoration of structures. The Admixture Systems business provides advanced products, solutions and expertise that improve durability, water resistance, energy efficiency, safety, sustainability and aesthetics of concrete structures, above and below ground, helping customers to achieve reduced operating costs, improved efficiency and enhanced finished products.

Utilizing worldwide resources, the Master Builders Solutions community of experts are passionate about providing solutions to challenges within all stages of construction, as well as the life cycle of a structure. At Master Builders Solutions we create sustainable solutions for construction around the globe.

Limited Warranty Notice

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