

MasterFiber® MAC 360 FF

Synthetic Hybrid Fiber with Optimum Finishing Performance

Description

MasterFiber MAC 360 FF, a synthetic hybrid fiber, is manufactured from a proprietary blend of polypropylene resins for use in making fiber-reinforced concrete in compliance with the requirements of ASTM C 1116/C 1116M “Standard Specification for Fiber-Reinforced Concrete.”

Applications

Typical applications include, but are not limited to, the following:

- Hard-troweled concrete
- Industrial and warehouse slabs-on ground
- Residential and commercial slabs-on-ground
- Concrete pavements, white-topping and overlays
- Composite metal decks
- Architectural panels

Features

MasterFiber MAC 360 FF hybrid fiber is a blend of synthetic micro- and macrofibers engineered for use as shrinkage and temperature (secondary) reinforcement and, specifically, to provide optimum finishing performance in hard-troweled concrete applications. MasterFiber MAC 360 FF hybrid fiber has also been engineered to provide post-crack flexural performance equivalent to that provided by most commercially-available synthetic macrofibers, at equal dosages. MasterFiber MAC 360 FF hybrid fiber has the following features:

- Uniform distribution throughout the concrete matrix
- Exceptional finishability
- Improves green strength
- Exceptional post-crack flexural performance
- Alkali resistant and rust proof

Benefits

- Enhances aesthetics and eliminates the potential for rust stains
- Eliminates the need for welded-wire reinforcement (WWR) and conventional steel bars used as shrinkage and temperature reinforcement, depending on application
- Provides effective tight crack control
- Permits earlier stripping of forms, with less rejection
- Minimizes plastic shrinkage and settlement cracking
- Enhances impact and shatter resistance
- Enhances durability
- Reduces construction time and overall labor and material costs

Performance Characteristics

Typical Physical Properties (macrofiber component)

Specific Gravity	0.91
Melting Point	320 °F (160 °C)
Ignition Point	1,094 °F (590 °C)
Absorption	Nil
Alkali Resistance	Excellent
Tensile Strength	85 ksi (585 MPa)
Length	2.0 in. (50 mm)
Aspect Ratio	83

Guidelines for Use

Dosage: The recommended minimum dosage for MasterFiber MAC 360 FF hybrid fiber is 3 lb/yd³ (1.8 kg/m³). For most applications, the 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 BASF Corporation. Unless otherwise approved by the engineer on the basis of equivalent post-crack flexural performance data, the dosage of MasterFiber MAC 360 FF hybrid fiber in composite metal deck-slab applications is 5 lb/yd³ (3 kg/m³), based on the requirements specified in ANSI/SDI C-2011 Standard for Composite Steel Floor Deck-Slabs.

Mixing: MasterFiber MAC 360 FF hybrid fiber is packaged in pre-weighed, ready-to-use, degradable bags which are designed to be introduced at any time before or during mixing of concrete produced in accordance with procedures specified in ASTM C 94/C 94M.

Suggested Specification Language

Synthetic hybrid fiber: Polyolefin hybrid fibers engineered and designed for use in making fiber-reinforced concrete complying with ASTM C1116/C1116M, Type III; MasterFiber MAC 360 FF hybrid fiber by BASF Corporation.

Storage and Handling

Storage Temperature: MasterFiber MAC 360 FF hybrid fiber 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 360 FF hybrid fiber is packaged in pre-weighed degradable 2.2-lb (1.0-kg), 3-lb (1.36-kg), 4-lb (1.81-kg), and 5-lb (2.27-kg) bags that can be added directly to the mixing system.

Related Documents

Safety Data Sheets: MasterFiber MAC 360 FF hybrid fiber

Additional Information

For additional information on the MasterFiber MAC 360 FF hybrid fiber, contact your local sales representative.

The Admixture Systems business of BASF's Construction Chemicals division is the leading provider of solutions that improve placement, pumping, finishing, appearance and performance characteristics of specialty concrete used in the ready-mixed, precast, manufactured concrete products, underground construction and paving markets. For over 100 years we have offered reliable products and innovative technologies, and through the Master Builders Solutions brand, we are connected globally with experts from many fields to provide sustainable solutions for the construction industry.

Limited Warranty Notice

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