

Description

MasterFiber M70 is a monofilament polypropylene fiber manufactured from 100% virgin homopolymer polypropylene resins.

MasterFiber M70 meets the requirements of ASTM C 1116/C 1116M, Section 4.1.3, Type III, and Note 2 and the requirements of ICC-ES AC308 Section 3.1.1 (plastic shrinkage reinforcement).

MasterFiber M70 disperses well in the concrete matrix and visible evidence of a superior finishability make it a good candidate for all residential applications.

Applications

Recommended for use in:

- Sidewalks
- Decks
- Patios
- Residential driveways
- Pool decks
- Extruded curbs and gutter
- Basement and garage floors
- Stucco

MasterFiber™ M70

Monofilament Microsynthetic Fiber

Features

- Excellent distribution
- Excellent finishability

Benefits

- Modifies macro-micro cracking mechanism
- Reduces plastic settlement
- Extends service life with reduced maintenance
- Enhances impact and surface abrasion resistance

Performance Characteristics

Physical Properties

Specific Gravity	0.91
Diameter	7 dpf (33 microns)
Melt Point	320 °F (160 °C)
Ignition Point	1094 °F (590 °C)
Water Absorption	Nil
Alkali Resistance	Excellent
Modulus of Elasticity	300 ksi (2.07 GPa)
Tensile Strength	25 ksi (170 MPa) (min)
Tenacity	4 g/den
Percent Elongation	13.5%
Available Lengths	0.75 in. (19 mm)

Product Data: MasterFiber M70

Engineering properties:

ICC ES AC32

Test Criteria	Control	MasterFiber M70	% of Control	AC32
Compressive Strength	4,530 psi (31.2 MPa)	5,210 psi (35.9 MPa)	115%	≥ Control
Flexural Strength	550 psi (3.8 MPa)	640 psi (4.4 MPa)	116%	≥ Control
Freeze/Thaw Durability Factor	88.5	93.1	105%	≥ Control
Bond Strength	18,970 lb (8,620 kg)	19,970 lb (9,080 kg)	105%	≥ Control
Plastic Shrinkage			81.8%	Min. 40%
Cracking			Reduction	Reduction

Data extracted from Stork-TCT Project No: 4122 94-5117.1R1 [Revised 27 November 2006].

Guidelines for Use

Dosage: The dosage of MasterFiber M70 is 0.75 to 1.5 lb/yd³ (0.45 to 0.90 kg/m³) depending on local conditions, specifications and practices.

Mixing: Typically no modifications to the mixture proportions are required when the product is used at 1.0 lb/yd³ (0.6 kg/m³) and standard mixing and finishing practices. The MasterFiber M70 fibers 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 3-5 minutes with the higher number preferred when the fibers are added after all of the standard ingredients have been introduced and mixed.

Packaging

MasterFiber M70 is packaged in pre-weighed 0.75 lb (0.34 kg) and 1.0 lb (0.45 kg) degradable bags to ensure optimum dosing and homogeneous distribution of the product.

Product Notes

MasterFiber M70 is not a replacement for structural steel reinforcement. It can not be used to replace any of the load-carrying steel reinforcement in a concrete element.

Engineering Specifications

MasterFiber M70 is engineered specifically to perform as a plastic shrinkage concrete reinforcement. For optimum performance, a dosage of 1.0 lb/yd³ (0.6 kg/m³) is recommended. MasterFiber M70 is compatible with admixtures and additives that meet the appropriate ASTM specifications.

MasterFiber M70 meets the requirements of ASTM C 1116/C 1116M, Section 4.1.3 Type III, and Note 2, as well as ICC-ES AC32 Section 3.1.1.

Related Documents

Material Safety Data Sheets: MasterFiber M70

Additional Information

For additional information on MasterFiber M70 contact your local sales representative.

The Admixture Systems business of BASF Construction Chemicals is a leading provider of innovative admixtures for specialty concrete used in the ready-mixed, precast, manufactured concrete products, underground construction and paving markets throughout the North American region. The Company's respected Master Builders brand products are used to improve the placing, pumping, finishing, appearance and performance characteristics of concrete.

BASF Construction Chemicals
Admixture Systems

www.masterbuilders.com

United States 23700 Chagrin Boulevard, Cleveland, Ohio 44122-5544 • Tel: 800 628-9990 • Fax: 216 839-8821
Canada 1800 Clark Boulevard, Brampton, Ontario L6T 4M7 • Tel: 800 387-5862 • Fax: 905 792-0651

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