



July 18, 2022

Henry Olivier
P.O. Box 9493
San Bernardino, CA 92427

Subject: Addendum-1: Pavement Structural Sections
Proposed Fueling Station and Market
Cajon Blvd., Glen Helen, CA
APN: 0349-182-11-0000

Reference: Geotechnical Engineering Report
Prepared by Geo-Cal, Inc. January 30, 2022

Dear Mr. Olivier,

Regarding the pavement section at the above referenced site, we concur with the following recommendation:


0.58' (7") Fibermesh Concrete with 1.5" Fibers (per attached specifications) over 0.5' (6") Aggregate Base (AB).

The AB should have an R-value of at least 78. The AB and the top 6 inches of soil subgrade should be compacted to at least 95% relative compaction (ASTM D 1557).

We trust that this is sufficient for your needs at this time. Feel free to contact this office if you have any questions.

Respectfully Submitted,

Geo-Cal, Inc.


Todd Wyland, RCE 60618
Project Engineer



Attachment: BASF: MasterFiber™ F70 Sheet



The Chemical Company

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03 30 00
03 40 00
03 70 00

Product Data

Cast-in-Place Concrete
Precast Concrete
Mass Concrete

Description

MasterFiber F70, a microsynthetic fiber, is a fibrillated polypropylene fiber manufactured from 100% virgin homopolymer polypropylene resins. MasterFiber F70 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 Sections 3.1.1 (plastic shrinkage reinforcement) and 3.1.2 (shrinkage and temperature reinforcement).

MasterFiber F70 is designed to distribute quickly throughout the concrete mixture. The fibrillation pattern is designed to optimize the mechanical bond between the mortar matrix and the fiber. MasterFiber F70 is an excellent shrinkage and temperature (secondary) reinforcement option when used at 1.5 lb/yd³ (0.9 kg/m³).

Applications

Recommended for use in:

- Residential and commercial slabs-on-ground
- Ultra-thin whitetopping
- Bonded overlays
- Architectural precast products and ornamental elements
- Slope stabilization
- Water treatment plants
- Irrigation ditches/channels

MasterFiber™ F70

Fibrillated Microsynthetic Fiber

Features

- Excellent distribution
- Excellent shrinkage and temperature reinforcement

Benefits

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

Performance Characteristics

Physical Properties

Specific Gravity	0.91
Melting Point	320 °F (160 °C)
Ignition Point	1094 °F (590 °C)
Water Absorption	Nil
Alkali Resistance	Excellent
Tensile Strength	44 ksi (300 MPa)
Modulus of Elasticity	780 ksi (5.38 GPa)
Tenacity	3.7 g/den
Percent Elongation	13.1%
Available Lengths	0.75 in. (19 mm) and 1.5 in. (38 mm)
Equivalent Diameter	0.026 in. (0.66 mm)

Master
Builders

Product Data: MasterFiber F70

Guidelines for Use

Dosage: The recommended dosage of MasterFiber F70 is 1.5 lb/yd³ (0.9 kg/m³).

Mixing: The bags can be introduced at any time during the mixing cycle, except at the same time as the cement. Three to five minutes will be required to disperse the fibers depending on when the product is added to the mixer.

Packaging

MasterFiber F70 is packaged in pre-weighed degradable 1.0 lb (0.45 kg), 1.5 lb (0.7 kg) and 7.5 lb (3.4 kg) bags that can be added directly to the mixing system.

Product Notes

MasterFiber F70 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.

Engineering Specifications

MasterFiber F70, at 1.5 lb/yd³ (0.9 kg/m³), is an option to conventional secondary reinforcement in structural plain concrete. MasterFiber F70 outperforms other microsynthetic fibers in providing an optimum three-dimensional shrinkage and temperature reinforcement system in concrete.

MasterFiber F70 meets the requirements of ASTM C 1116/ C 1116M, Section 4.1.3, Type III, and Note 2, and ICC ES AC308, Sections 3.1.1 and 3.1.2.

Related Documents

Material Safety Data Sheets: MasterFiber F70

Additional Information

For additional information on MasterFiber F70, contact your local sales representative.

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