

FiberForce 500™

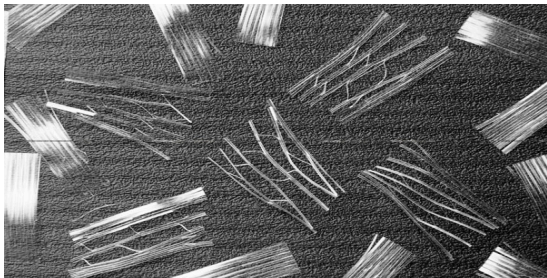
1. IDENTIFICATION

PRODUCT NAME: FiberForce 500™ (Fibril-Pro™)

OTHER IDENTIFICATION: Polypropylene Fiber

RECOMMENDED USE: Secondary/Temperature Shrinkage Reinforcement and Plastic Shrinkage Reinforcement in concrete.

SOURCE: ABC Polymer Industries, LLC.
 545 Elm Street, Helena, AL 35080



2. DESCRIPTION

FiberForce 500 is an ultra-low denier fibrillated fiber manufactured from 100% virgin homopolymer polypropylene resins.

FiberForce 500 is primarily used as temperature-shrinkage reinforcement and plastic-shrinkage reinforcement. The fibers measurably reduce plastic settlement while offering excellent distribution and finishability as well as extending service life by enhancing impact and surface abrasion resistance.

The fibrillation pattern was designed to optimize mechanical bond between the mortar mix and the fiber networks, and, due to the low denier, considerably more fibrillated bundles are introduced to the concrete mix thus providing increased plastic and drying shrinkage crack resistance as compared to other microsynthetic fibers.

3. APPLICATIONS

- Residential and Commercial Slabs-on-Ground
- Ultra-thin whitetopping (UTW)
- Architectural precast products and ornamental elements
- Irrigation ditches and channels
- Shotcrete applications

4. FEATURES & BENEFITS

- Replacement for typical light gauge welded-wire reinforcement (6 x 6 W1.4 x W1.4)
- Excellent distribution throughout the concrete mix
- Excellent temperature-shrinkage reinforcement
- Excellent reduction in plastic shrinkage and settlement cracking
- Extends service life of the concrete with reduced maintenance
- Increases concrete durability - including impact and abrasion resistance and fatigue strength
- Delivered to site pre-mixed

5. PHYSICAL PROPERTIES

Material	Polypropylene
Absorption	Nil
Specific Gravity	0.91
Alkali Resistance	Excellent
Melting Point	320 °F (160 °C)
Acid & Salt Resistance	Excellent
Electrical Conductivity	Low
Equivalent Diameter	0.012 in (0.31 mm)
Standard Length	0.75 in (19 mm)
Other Available Lengths	0.25 in (6.4 mm), 0.5 in (12.7 mm), Graded

6. MIXING INSTRUCTIONS

Typically, no modifications are required when FiberForce 500 is used at 1.5 lb. per cubic yard. Standard mixing and finishing practices can be employed.

FiberForce 500 may be added to the concrete mix at any time before, during or after the batching process, except at the same time as the cement.

The normal mixing range is 3-5 minutes with the higher mixing time preferred when the fiber is added after the standard ingredients have been introduced and mixed.

Follow ASTM C94, "Standard Specifications for Ready-Mixed Concrete" in assembling a homogeneous mix.

Our **Professional Engineers** are available for consultation on how to establish the optimum design.

7. PRODUCT APPROVALS & COMPLIANCE WITH INDUSTRY STANDARDS

- ASTM C1116 Section 4.1.3 and Note 2
- ICC ES AC32 Section 3.1.1
- ICC ES AC32 Section 3.1.2
- ASTM D7508
- Listed as ICC ESR-1699



WARRANTY AND LIMITATION OF LIABILITY

As used herein, the term "ABC" shall refer to ABC Polymer Industries, LLC, and its subsidiaries.

The terms of ABC's invoices shall be governed by and construed in accordance with the laws of the State of Alabama.

ABC's fibers are intended to reduce plastic shrinkage cracking and provide secondary temperature shrinkage reinforcement. ABC's fibers should not be used as structural reinforcement. ABC Polymer Industries, LLC warrants that the product sold hereunder is of merchantable quality and conforms to the seller's standards and specifications. The seller's sole liability for claim shall be limited to replacement of defective or non-conforming product. In no event shall the seller be liable for any special, incidental, consequential, or exemplary damages. ABC Polymer Industries, LLC recommends that each user determine the suitability of the product(s) for their particular application.

ABC engineering and sales personnel are available to assist in selecting the appropriate fiber for a given specification / application. Said personnel will provide an overview of anticipated performance based upon experience and testing data. ABC personnel will provide recommendations, but are not the final arbiters on design. ABC personnel will provide onsite support where our products are utilized and when deemed necessary, but will not participate in the supervision of any project. ABC's responsibility is to support our customers and to provide our customers with the best materials and assistance in marketing these products.

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Please contact us with any questions regarding this product, or if a Letter of Certification for FiberForce 500 is needed to show compliance with the specifications referenced above or specific project requirements.

FiberForce 500 is also known as Fibril-Pro™. All Fibril-Pro test data and approvals apply to FiberForce 500.

8. GENERAL SPECIFICATIONS

FiberForce 500 should be added per project specifications or engineer's instructions.

FiberForce 500 is typically introduced at 1.5 lb. per cubic yard of concrete. The fibers are packaged in pre-measured degradable bags that can be added directly to the concrete mix.

For dosage rates outside the typical range, please contact your **Regional FiberForce Representative**.

9. PLACING & FINISHING

Standard placement and finishing techniques are recommended for FiberForce 500 fiber reinforced mixes.

To optimize the slab surface finishing process, make sure that the fibers on the surface of the slab are encapsulated in the concrete matrix.

To improve the quality of consolidation of the concrete, use a laser or vibrating screed. We also recommend using an early-entry saw.

10. PACKING & SHIPPING

FiberForce 500 can be packaged into bags as small as 1.5 lb. Depending on the size of the order, the pallets will range between 648 and 864 lbs.

All orders that are less than a truck load can be shipped within 48 hours of purchase order receipt.

