

## FiberForce 100™

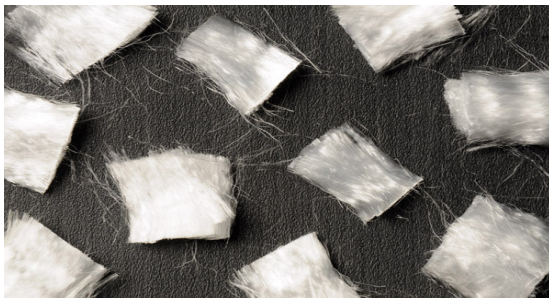
### 1. IDENTIFICATION

PRODUCT NAME: FiberForce 100™ (Mono-Pro™)

OTHER IDENTIFICATION: Polypropylene

RECOMMENDED USE: Plastic shrinkage reinforcement in concrete.

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



### 2. DESCRIPTION

FiberForce 100 is a unique, high tensile strength, high modulus of elasticity, ultra-thin monofilament fiber manufactured from 100% virgin homopolymer polypropylene resins.

FiberForce 100 fibers are used primarily as plastic shrinkage crack reinforcement in concrete.

There are approximately 35 million individual 3/4" long fibers in 0.50 lb. of product. Due to the high fiber count, 0.50 lb. of FiberForce 100 has twice as many fibers as conventional monofilament fibers at the 1 lb. per cubic yard dosage rate.

At the engineered dosage of 0.50 lb. per cubic yard, FiberForce 100 offers stellar plastic shrinkage reinforcement, while also offering excellent distribution and finishability. The fiber also extends service life by reducing permeability and enhancing impact and surface abrasion resistance.

### 3. APPLICATIONS

- Residential Slab-on-Ground
- Commercial Slab-on-Ground
- Decks and patios
- Water retention tanks
- Pool decks
- Stucco
- Dry packaged cement-based products
- Precast products
- Tunnel linings

### 4. FEATURES & BENEFITS

- Uniform distribution throughout the concrete mix
- Excellent finishability
- Excellent reduction in plastic shrinkage and settlement cracking
- Measurably reduces permeability, thus increasing freeze-thaw durability
- 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)
Electrical Conductivity	Low
Equivalent Diameter	0.00085 in (0.022 mm)
Standard Length	0.75 in (19 mm)
Other Available Length	0.5 in (12.7 mm), Graded

## 6. MIXING INSTRUCTIONS

Typically, no modifications are required when FiberForce 100 is used at 0.50 lb. per cubic yard. Standard mixing and finishing practices can be employed.

FiberForce 100 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
- ASTM D7508
- ICC ES AC32 Section 3.1.1
- Listed in ICC ESR-1699



Please contact us with any question regarding this product or if a Letter of Certification for FiberForce 100 is needed to show compliance with the specifications referenced above or specific project

requirements.

FiberForce 100 is also known as Mono-Pro™. All Mono-Pro test data and approvals apply to FiberForce 100.

## 8. GENERAL SPECIFICATIONS

FiberForce 100 should be added per project specifications or engineer's instructions.

FiberForce 100 is typically introduced at 0.50 lbs. per cubic yard of concrete. The fibers are packaged in pre-measured degradable bags that can be added directly to the mix.

FiberForce 100 fibers are not intended to replace primary, load bearing steel reinforcement.

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

## 9. ICC ES AC32 ENGINEERING PROPERTIES

Test	Control		% of Control	ICC Criteria
Compressive Strength, psi	35.1	38.1	110.5%	≥ Control
Flexural Strength, psi	3.9	4.3	108.4%	≥ Control
Freeze/Thaw Durability	89.5	92.5	103.6%	≥ Control
Bond Strength, psi	111.5	139.0	124.7%	≥ Control
Plastic Shrinkage Cracking		62%		Min. 40% Reduction

## 10. PACKING & SHIPPING

FiberForce 100 can be packaged into bags as small as 0.50 lb. and as large as 30 lbs. Depending on the size of the order, the pallets will range between

### 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 products(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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