

FiberForce 600™

1. IDENTIFICATION

PRODUCT NAME: FiberForce 600™

OTHER IDENTIFICATION: Unique blend of macro monofilament fibers.

RECOMMENDED USE: Primarily for use as secondary/post-first crack reinforcement and will also provide plastic shrinkage reinforcement in concrete.

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



2. DESCRIPTION

FiberForce 600 is a blend of macrosynthetic and microsynthetic fibers.

FiberForce 600 is manufactured from a specific blend of polypropylene and polyethylene resins that possess unique engineering properties.

FiberForce 600 was developed primarily for the use as post-first crack reinforcement in concrete and will also provide plastic-shrinkage reinforcement.

Extensive testing of FiberForce 600 reveals that it provides superior benefits when compared to similar blends in the market.

3. APPLICATIONS

Interior

- Commercial, industrial, and warehouse slabs-on-ground

Exterior

- Slabs-on-ground, Roadway & Highway
- Pavements
- Shotcrete
- Bridge Decks
- Precast
- Septic tanks
- Burial vaults
- Utility vaults

4. FEATURES & BENEFITS

- Provides post-first crack residual strength to concrete
- Provides temperature-shrinkage reinforcement
- Increases concrete durability - including impact and abrasion resistance and fatigue strength
- Reduces plastic shrinkage and settlement cracking
- Measurably reduces permeability, thus increasing freeze-thaw durability
- Provides uniformly distributed reinforcement throughout the concrete, not just in one plane as with traditional steel reinforcement
- A cost-effective alternative to traditional steel reinforcement
- Delivered to site pre-mixed

5. PHYSICAL PROPERTIES

Absorption	Nil
Specific Gravity	0.91
Alkali Resistance	Excellent
UV Resistance	Excellent
Melt Temperature	325 °F (163 °C)
Moisture Resistance	Excellent
Alkali Resistance	Excellent
Linier Density	900/15
Fiber Lengths	1.5 in ± 0.15 in (38 mm ± 3.8 mm) / 0.75 in ± 0.075 (19 mm ± 1.9 mm)
Aspect Ratio	100/395
Equivalent Diameter	0.015 in (0.38 mm) / 0.0019 in (0.048 mm)
Elongation	8.1%
Tensile Strength	71.5 ksi (493 MPa)

6. MIXING INSTRUCTIONS

Concrete mixing plant personnel should establish the correct mix design based upon the quantity of FiberForce 600 being added to the mix. Adjustments to the mix may be required and a mid-range or hi-range water reducer is recommended.

FiberForce 600 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.

A minimum of 75-100 revolutions at mixing speed or 5-7 minutes of mixing at high speed may be needed to ensure complete dispersion of the fibers.

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



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

7. PRODUCT APPROVALS

- ASTM C1116 Section 4.1.3 and Note 2
- ASTM D7508

Please contact us with any questions regarding this product or if a Letter of Certification for FiberForce 600 is needed to show compliance with the specifications referenced above or specific project requirements.

8. GENERAL SPECIFICATIONS

FiberForce 600 should be added per project specifications or engineer's instructions.

Please note that a specific dosage rate should be established by the project engineer or government agency for a given application based on project conditions and requirements.

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

9. PLACING & FINISHING

When using the standard dosage level of FiberForce 600, we recommend that a mid-range or high-range water reducer be added to the mix to enhance workability.

10. PACKING & SHIPPING

FiberForce 600 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 648 and 1,080 lbs.

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