

## FiberForce 1000 HP™

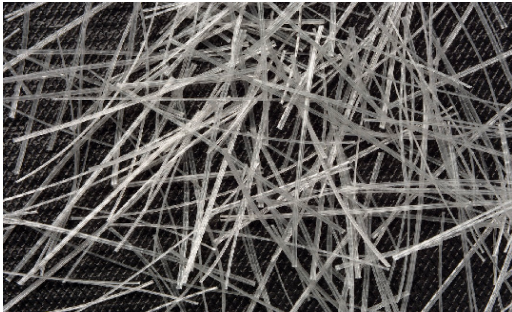
### 1. IDENTIFICATION

PRODUCT NAME: FiberForce 1000 HP™ (Omni HP™)  
(patent pending)

OTHER IDENTIFICATION: Polyolefin

RECOMMENDED USE: Temperature-shrinkage reinforcement and post-first crack toughness in concrete, increase load carrying capacity of slabs-on-ground.

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



### 2. DESCRIPTION

FiberForce 1000 HP is a monofilament macrosynthetic concrete fiber developed from a specific blend of 100% virgin polypropylene and polyethylene resins extruded into a unique configuration, best described as an embossed staple.

FiberForce 1000 HP is our newest concrete fiber and the result of 25 years of synthetic fiber development and manufacturing experience. Finishability, mixability, and pumpability are some of the most important aspects of concrete fiber performance and the FiberForce 1000 HP was designed to excel in all of these areas. The aspect ratio (fiber length to diameter ratio) and anchoring mechanism of FiberForce 1000 HP have been optimized to provide less fibers per pound to aid in its finishability while simultaneously providing industry leading residual flexural strength values per pound as measured in commercial labs by ASTM C1609.

### 3. APPLICATIONS

Interior

- Commercial, industrial, and warehouse slabs-on-ground
- Composite metal deck

Exterior

- Slabs-on-ground, Roadway & Highway Pavements
- Shotcrete
- Bridge Decks

Precast

- Septic tanks
- Burial vaults
- Utility vaults

### 4. FEATURES & BENEFITS

- Uniformly distributed 3-dimensional reinforcement system
- Can increase the load carrying capacity of slabs-on-ground at higher dosage rates
- Proactive reinforcement system that controls cracking for plastic and drying shrinkage
- Reduces plastic settlement and bleeding, which translates into reduced permeability
- Provides post-first crack residual strength to concrete
- Increases concrete durability including impact and abrasion resistance and fatigue strength, thus increasing the durability of the concrete
- A cost-effective alternative to traditional steel reinforcement
- Eliminates the need for a concrete pump on slab-on-ground projects
- Delivered to site pre-mixed

## 5. PHYSICAL PROPERTIES

|                         |                                    |
|-------------------------|------------------------------------|
| Material                | Polyolefin                         |
| Absorption              | Nil                                |
| Specific Gravity        | 0.91                               |
| Acid & Salt Resistance  | Excellent                          |
| Alkali Resistance       | Excellent                          |
| Electrical Conductivity | Low                                |
| Aspect Ratio            | 94                                 |
| Equivalent Diameter     | 0.0213 in (0.541 mm)               |
| Standard Lengths        | 2.0 in (50 mm)                     |
| Other Available Lengths | 1.5 in (38 mm),<br>2.25 in (57 mm) |

## 6. MIXING INSTRUCTIONS

FiberForce 1000 HP is packaged in water-soluble bags that can be added directly into the concrete mix.

To ensure optimum distribution of the fibers, FiberForce 1000 HP must be put at the middle or end of the load (in ready-mix trucks).

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.

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
- FiberForce 1000 HP is listed by UL in CBXQ.R19202 (Fiber Reinforcement and Concrete Additives) for use as an alternate or in addition to the welded wire fabric used in Floor-Ceiling Designs Nos. D700, D800, and D900 Designs
- ANSI/SDI C-2011 - Shrinkage and temperature reinforcement alternative to welded wire reinforcing



### 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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(WWR) for composite steel floor decks when used at a minimum dosage rate of 4 lbs. per cubic yard (Section 2.4B Note 13)

Please contact us with any questions regarding this product or if a Letter of Certification for FiberForce 1000 HP is needed to show compliance with the specifications referenced above or specific project requirements.

FiberForce 1000 HP is also known as Omni HPTM. All Omni HP test data and approvals apply to FiberForce 1000 HP.

## 8. GENERAL SPECIFICATIONS

FiberForce 1000 HP should be added per project specifications or engineer's instructions.

The recommended dosage rate for FiberForce 1000 HP is typically between, but not limited to, **3 to 11 lbs. per cubic yard**. However, 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

Standard placement and finishing techniques are recommended for FiberForce 1000 HP 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 1000 HP can be packaged in bags as small as 3 lbs. and as large as 7 lbs. Depending on the size of the order, the pallets will range between 567 and 864 lbs.

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



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