

FiberForce 950™

1. IDENTIFICATION

PRODUCT NAME: FiberForce 950™ (Omni Blend™)

OTHER IDENTIFICATION: Blend of polypropylene/polyethylene macrosynthetic and microsynthetic 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 950 is a blend of polypropylene/polyethylene macrosynthetic monofilament fibers and 100% virgin polypropylene microsynthetic monofilament fibers.

FiberForce 950 was developed primarily for the use as post-first crack toughness in concrete and will also provide plastic shrinkage reinforcement.

The combination of macrosynthetic and microsynthetic fibers enhances the long-term durability of the concrete, resulting in measurable quantifiable gains in impact resistance, surface abrasion resistance, reduced permeability, fatigue strength, and plastic and temperature-shrinkage crack reduction.

3. APPLICATIONS

Interior Slabs-on-Ground

- Commercial
- Light, medium, heavy industrial, and warehouse

Exterior Slabs-on-Ground

- Ingress-egress roadways (malls, industrial, and warehouse sites)

- Parking facilities (malls, industrial, and warehouse sites)
- State DOTs, specifications, and code applications
- Bridge decks

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

Material	Polypropylene/ Polyethylene
Absorption	Nil
Specific Gravity	0.91
Acid & Salt Resistance	Excellent
Alkali Resistance	Excellent
Electrical Conductivity	Low
Macrosynthetic Component	
Tensile Strength	73 ksi avg.
Equivalent Diameter	0.035 in (0.889 mm)
Standard Length	1.75" (44.5 mm)
Microsynthetic Component	
Equivalent Diameter	48 microns
Standard Length	0.5" (12.5 mm)

6. MIXING INSTRUCTIONS

Concrete mixing plant personnel should establish the correct mix design based upon the quantity of FiberForce 950 being added to the mix. Adjustments to the mix may be required and a mid-range or hi-range water reducer is recommended to enhance pumping.

FiberForce 950 is packaged in water-soluble bags that can be added directly into the concrete mix.

To ensure optimum distribution of the fibers, FiberForce 950 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

- ASTM C1116 Section 4.1.3
- ASTM C1399
- ANSI/SDI C-2011- Shrinkage and temperature reinforcement alternative to welded wire reinforcing (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 950 is needed to show compliance with the specifications referenced above or specific project requirements.

FiberForce 950 is also known as Omni Blend™. All Omni Blend test data and approvals apply to FiberForce 950.

8. GENERAL SPECIFICATIONS

FiberForce 950 should be added per project specifications or engineer's instructions.

The recommended dosage rate for FiberForce 950 is typically between, but not limited to, **5 to 10 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.

FiberForce 950 is not intended to replace primary, load bearing steel reinforcement.

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 950 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 a soft cut saw.

10. PACKING & SHIPPING

FiberForce 950 is packaged in 5 lbs. bags and shipped in 675 lbs. pallets.

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

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.

© 2017-18 ABC Polymer Industries, LLC.

