

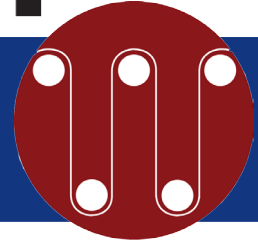


# TUFMAX™

Embossed Tape Macrosynthetic Fiber

# DOT

## SPECIFICATION DATA SHEET



### DESCRIPTION

TUF-MAX DOT is a macrosynthetic fiber developed, manufactured and marketed by ABC Polymer Industries, LLC. TUF-MAX DOT is a specific blend of polypropylene and polyethylene resins that possesses unique engineering properties. This product was developed solely for use as a secondary/post-first crack reinforcement in concrete.

Defined as a tape or ribbon fiber it has a rectangular cross-section and has been mechanically embossed to enhance bonding. The physical dimensions of the TUF-MAX DOT are critical to the performance as measured by ASTM Test Method C1609. Extensive testing has shown that the product performs equal to or superior to the other macrosynthetic fibers on the market. The distribution and finishing properties of TUF-MAX DOT are excellent.

### PHYSICAL PROPERTIES

<b>Materials:</b>	Polypropylene/Polyethylene.
<b>Absorption:</b>	Nil
<b>Specific Gravity:</b>	0.91
<b>Acid &amp; Salt Resistance:</b>	Excellent
<b>Tensile Strength:</b>	70 ksi avg.
<b>UV Resistance:</b>	Excellent
<b>Ignition Point:</b>	1100°F (590°C)
<b>Standard Fiber Lengths:</b>	1.5”(38mm) and 2.0”(50mm)
<b>Melting Point:</b>	330°F (165°C)
<b>Water Absorption:</b>	Nil
<b>Alkali Resistance:</b>	Excellent
<b>Electrical Conductivity:</b>	Low

Tuf Max DOT has been accepted by a number of state DOTs as well as specifications and code applications. ABC Polymer continues the process of obtaining approvals from additional state transportation departments and to test the product at multiple dosage levels for commercial and industrial applications.

### APPLICATIONS

Interior Slabs-on-Ground

- Commercial,
- Light, Medium and Heavy Industrial Warehouse

Exterior Slabs-on-Ground

- Ingress-Egress Roadways....malls, industrial and warehouse sites
- Parking Facilities.....malls, industrial and warehouse sites
- State DOTs and other specification/code applications

### PLACING AND FINISHING

Standard placement and finishing techniques are recommended for TUF-MAX DOT fiber reinforced mixes. To optimize the slab surface finishing process, utilize a laser or vibrating screed. The use of a soft cut saw is recommended.

# ENGINEERING SPECIFICATIONS

Conforms to: ASTM C1116. Section 4.1.3 and Note 2.

**Fiber Reinforcement and Concrete Additives:** The UL Certificate of Compliance Number 20130305-R19202 (Report Reference R19202-20130305) certifies that representative samples of macrosynthetic fibers designated as Tuf Max DOT have been investigated by UL in accordance with the Standard(s) indicated on this Certificate.



**Standards for Safety:** UL263 Fire Tests of Building Construction and Materials. See UL Online Certifications Directory at [www.ul.com/database](http://www.ul.com/database) for additional information.

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## GENERAL SPECIFICATIONS

TUF-MAX DOT fibers should be added per engineer's instructions or government agency with the dosage rate established by testing or a specific dosage established for a given application. TUF-MAX DOT fibers are packaged in pre-measured degradable bags that can be added directly to the mix.

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## INSTRUCTIONS FOR USE

Concrete mixing plant personnel should establish the correct mix design based upon the quantity of TUF-MAX DOT fibers being added to the mix. Adjustments to the mix may be required and a mid-range or hi-range water reducer is recommended. TUF-MAX DOT fibers may be added to the concrete at any time before, during or after the batching process, with a single exception...bags may not be added at the same time as the cement. A minimum increase in mixing time may be needed to ensure complete dispersion of the fibers. Follow ASTM C-94, "Standard Specifications for Ready-Mixed Concrete" in assembling a homogeneous mix. Please contact ABC Polymer if a Letter of Certification for TUF-MAX DOT is needed to show compliance with the specifications referenced above or specific project requirements.

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## PACKAGING AND SHIPPING

We strive to meet our customers' needs and specifications by shipping our fiber in an inexpensive and timely manner, and by packaging our fiber in infinite ways. We ship within 48-hours of purchase order receipt for less than truckload orders. We can package into bags as small as 0.50-lb. and as large as 30-lbs. Our pallets range in weight from 648-lbs. to 1080-lbs. We remember that we are here because of our customers, and strive to keep them happy!

### 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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