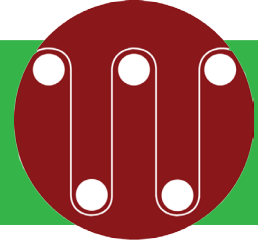




Monofilament Nylon Microsynthetic Fibers

SPECIFICATION DATA SHEET



GENERAL

NY-TUF 1 is a standard denier monofilament nylon fiber designed to distribute quickly throughout the concrete mix. **NY-TUF 1** modifies the macro and micro cracking properties of the concrete, which significantly improves long term durability. Typically used at a dosage rate of 1.0 pcy **NY-TUF 1** will provide both plastic shrinkage crack reinforcement and temperature-shrinkage crack reinforcement.

PHYSICAL PROPERTIES

Specific Gravity	1.16
Denier	6-12
Thermal/Electrical Conductivity	Low
Melting Point	490°-510°F (260°-265°C)
Alkali/Acid Resistance	Excellent
Color	Natural (White)
Water Absorption	≤ 5%
Available Lengths	3/4" (19mm)

APPLICATIONS

- Residential and Commercial Slabs-on Ground
- Architectural Precast Products
- Ornamental Precast Products
- Dry Packages Cement Based Products

FEATURES & BENEFITS

- Excellent Distribution
- Excellent Finishing Properties
- Modifies macro-micro cracking mechanism
- Reduces plastic concrete settlement
- Extends the service life of the concrete
- Reduces maintenance costs during life of the concrete
- Reduces permeability

PRODUCT APPROVALS

NY-TUF 1 conforms to the requirements of ASTM C1116, Section 4.1.3 and Note 2 and will meet the requirements of ICC ES AC32 Sections 3.1.1 and 3.1.2 at the 1.0 pcy dosage rate.

MANUFACTURER'S RECOMMENDATIONS:

NY-TUF 1 is a standard denier monofilament nylon fiber used as either plastic shrinkage crack reinforcement or temperature-shrinkage crack reinforcement or both in cement concrete. The traditional dosage rate for NY-TUF 1 is 1.0 pcy. NY-TUF 1 is an excellent replacement for conventional temperature-shrinkage reinforcement. NY-TUF 1 is 3-dimensionally distributed throughout the concrete matrix thus making it a proactive reinforcement system versus wire mesh, which is a reactive single plane of reinforcement.

NY-TUF 1 is packaged in pre-weighed degradable bags that may be added directly to the mixing system. The bags can be introduced at any time during the mixing cycle, except when the cement is being added. Three to five minutes will be required to disperse the fibers depending on when the product is added to the mixing system. ABC Polymer Industries recommends the fibers be added at the ready mix plant to ensure optimum distribution of the fibers.

ENGINEERING SPECIFICATIONS:

NY-TUF 1 is an optimum alternative to wire mesh as temperature-shrinkage reinforcement in cement concrete. NY-TUF 1 provides a quantifiable Value Engineering option to conventional temperature-shrinkage reinforcement. As seen in Table 1 below, NY-TUF 1 benefits a number of the durability properties of the concrete. Most importantly, NY-TUF 1 modifies the micro-macro cracking mechanism.

NY-TUF 1 is typically specified at the 3/4" length and at 1.0 pcy will provide temperature-shrinkage reinforcement in Plain Structural Concrete. NY-TUF 1 meets the requirements of ASTM C1116, Section 4.1.3 and Note 2 plus ICC ES AC32, Sections 3.1.1 and 3.1.2.

TABLE 1 – SUMMARY OF ICC ES AC32 TEST RESULTS (% OVER CONTROL)

TEST METHOD	AC32 SECTION & PROPERTY	AGE (DAYS)	NY-TUF 1 AT 1.00 PCY	AC32 REQUIREMENTS
ASTM C78	Section 4.1 - Flexural Strength	28	105	100 (min)
ASTM C39	Section 4.2 - Compressive Strength	28	116	100 (min)
ASTM C234	Section 4.3 - Pull-Out Strength	28	148	100 (min)
ASTM C666-A	Section 4.4 - Freeze Thaw Durability	300 cycles	111	100 (min)
AC32 App A	Section 4.5 - Plastic Shrinkage Reduction	Final Set	65	40 (min)
AC32 App D	Section 4.7 - Residual Strength	28	160 psi	50 psi (min)

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.