# **ProFiber®-** S Structural Fibers for Concrete

### **DESCRIPTION:**

**ProFiber®-S** fibers are the ultimate three-dimensional secondary reinforcement for your precast or ready mix concrete work. **ProFiber®-S** Fibers will provide convenience and cost savings for your next project, outperforming both steel fibers and traditional welded wire fabric.

ProFiber®-S fibers are widely used in industrial, commercial and residential applications as secondary reinforcement in ready mix concrete to enhance toughness and provide additional post-crack integrity.
ProFiber®-S fibers are especially effective in precast applications, where enhanced durability and toughness is needed. ProFiber®-S fibers control plastic shrinkage and settlement cracking inherent to unreinforced concrete, in addition to preventing cracks in hardened concrete. ProFiber®-S Fibers are manufactured from 100% olefin materials. Unless otherwise specified, application rate shall be 3.0 - 5.0 lbs. per cubic yard.
ProFiber®-S Fiber complies with ASTM C1116 Type III, 4.1.3 and has been tested in accordance with ASTM-C1399.

#### **PHYSICAL PROPERTIES:**

Material: 100% polyolefin Denier: 3000 Absorption: None Specific Gravity: 0.91 Alkali, Salt, and Acid Resistance: High Melting Point: 320°F (160°C) Electrical Conductivity: Low Tensile Strength: 71.5ksi (493 MPa) Aspect Ratio: 100 Standard Length: 1.5 in UV Resistance: High E Modulus of Elasticity: 800 ksi Longation: 8% - 9.5% Water Absorption: Negligible

## **APPROVALS AND GENERAL SPECIFICATION:**

Conforms to: ASTM C1116: Section 4.1.3 Type III and Note 2 ASTM D7508, ASTM E119 for fire resistance

**ProFiber®-S** 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 Design No. D700, D800, and D900.

ANSI/SDI C-2017 - Shrinkage and temperature reinforcement alternative to welded wire reinforcing.

#### ASTM C-1399 results

Dosage Average Residual Strength (ARS) 4.0 lbs/yd3 191 PSI (1.32 Mpa) 5.0 lbs/yd3 255 PSI (1.76 Mpa)

### RECOMMENDED DOSAGE RATE:

**ProFiber®-S** Fiber should be added at a dosage rate of 3.0 - 5.0 lbs. per cubic yard of concrete, unless otherwise specified. **ProFiber®-S** Fiber is packaged in pre-measured water-soluble bags that can be added directly to the mix.

#### **INSTRUCTIONS FOR USE:**

**ProFiber®-S** Fibers may be added to the concrete at any time before, during or after the batching process. Because of the higher dosages of **ProFiber®-S** fibers, mixing at high speed for a minimum of 8 minutes is recommended. In ready-mix applications, fibers must be mixed in accordance with ASTM C-94, "Standard Specifications for Ready-Mixed Concrete".

#### PLACEMENT AND FINISHING:

Placement and finishing techniques are no different for concrete containing **ProFiber®-S** Fibers than for plain concrete. It is strongly recommended that no additional mix water be added.



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