

FRC 850 BLEND

SPECIALIZING IN CRACK-CONTAINMENT



DESCRIPTION

FRC-850 BLEND is a blend of low carbon drawn wire fibers and polypropylene synthetic micro fibers. The combination of the two proven fiber types provides a reinforcement system that addresses plastic shrinkage as well as restrained shrinkage in concrete slabs. Blending both fiber types into one pre-measured degradable bag offers owners, engineers, and contractors an easy way to provide a highly effective alternative to welded wire mesh and rebar.

SPECS

STEEL

FIBER LENGTH	1.5"
MATERIAL TYPE	LOW CARBON DRAWN WIRE
SPECIFIC GRAVITY	7.85
TENSILE STRENGTH	140 KSI
DIAMETER	1.2 MM

MICRO

FIBER LENGTH	1/2" & 3/4"
MATERIAL TYPE	100% VIRGIN POLYPROPYLENE
SPECIFIC GRAVITY	0.91
TENSILE STRENGTH	40-60 KSI
DIAMETER	10-15 DENIER

*MANUFACTURED TO THE REQUIREMENTS OF ASTM C-1116-10 TYPE III 4.1.3 & ASTM A-820

MECHANICAL PROPERTIES



CRACK-CONTAINMENT

FRC-850 BLEND is used to minimize crack propagation.



DURABILITY

FRC-850 BLEND adds durability to the concrete by increasing impact and abrasion resistance while providing crack-containment.



COMPRESSION

Does not add to the compressive strength of the concrete.



FLEXURAL

FRC-850 BLEND does not increase the first crack strength of the concrete (MOR). However, it can affect the post crack strength and the ability to maintain load support.



DIRECT TENSION

FRC-850 BLEND can enhance the tensile strength depending on the dosage rates.

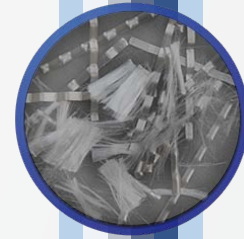


TOUGHNESS

Toughness can be increased by adding FRC-850 BLEND fibers.

GUIDELINES

FRC-850 BLEND fibers are used for long-term crack-containment and to help control plastic shrinkage cracking in concrete. They should not be used to increase joint spacing beyond ACI or PCA recommendations. FRC-850 BLEND fibers should be added at a minimum dosage rate of 1 (24 lb) bag per cubic yard unless otherwise specified.



MINI SPECIFICATIONS

Fiber Reinforced Concrete shall consist of a blend of low carbon, drawn wire fibers and polypropylene micro fibers. The steel component shall be 1.5" and meet the requirements of ASTM A-820 Type V and the micros shall be multi-length (1/2" and 3/4") made of 100% virgin polypropylene conforming to ASTM C-1116 Type III. Dosage rate shall be on plans but not less than one bag per cubic yard.

Fibers shall be FRC-850 BLEND manufactured by FRC INDUSTRIES: 1655 North McFarland Blvd, Box 186 - Tuscaloosa, AL 35406 - 888-783-2517 or Equal.

MIXING PLACING & FINISHING

FRC-850 BLEND should be added after the batching of the concrete. Care should be taken to make sure fibers are not added to the tail end of a high slump mix. Mixing should conform to ASTM C94 with a minimum of 75 revolutions of the drum at full mixing speed to ensure uniform distribution of the fibers.

These fibers can be pumped and placed using conventional equipment. Normal finishing equipment and techniques can be used when working with FRC-850 BLEND fibers.

REFERENCE DOCUMENTS

ACI 302 Guide for Concrete Floor and Slab Construction

ACI 360 Design of Slabs on Ground

ACI 506 Guide for Shotcrete

ACI 1609/ C1609M Standard Test Method for Flexural Performance of FRC

ASTM A 820 Standard Specification for Steel Fibers for Fiber-Reinforced Concrete

ASTM C94 Standard Specification for Ready-Mixed Concrete

ASTM C1116 Standard Specification for Fiber-Reinforced Concrete and Shotcrete

ASTM C 1399 Standard Test Method for obtaining Average Residual Strength of FRC

WARRANTY & LIMITATION OF LIABILITY

Product sold herein is of merchantable quality to seller's standards and specifications. Seller's sole liability for claim shall be limited to replacement of defective or nonconforming product. In no event shall seller be liable for any special, incidental, consequential, or exemplary damages.



INDUSTRIES

www.frcindustries.com

888-783-2517

1655 North McFarland Blvd Box 186 Tuscaloosa, AL 35406



PRODUCT CERTIFICATION

FRC-850 Blend

This letter is to certify that FRC-850 Blend meets or exceeds the requirements for ASTM C-1116 type III "Standard Specification for Fiber-Reinforced Concrete and Shotcrete." Our FRC-850 is a blend of carbon steel fibers and synthetic micro fibers made from 100% virgin Polypropylene resin designed specifically for use as concrete reinforcement. The fiber is designed to control plastic & drying shrinkage cracking in the concrete mix.

We certify that the FRC-850 Blended fibers reduce plastic settlement and plastic shrinkage of the mix, while improving the impact, abrasion, and shatter resistance of the concrete. Our Fiber also improves the fatigue endurance and ductility of the concrete.

FRC INDUSTRIES is proud to label our FRC-850 Fiber as a "Made in America" Product

FRC-850 Blend Conforms to the physical properties below:

Property	Steel	Micro
Fiber Length	1.5 "	ML
Diameter	1.2mm	15 dpf
Specific Gravity	7.85	.91
Material	Carbon Steel	Virgin PP
Tensile Strength	140 ksi	40-60 ksi
Modulus of Elasticity	NA i	600 ksi
Acid & Salt Resistance	NA	High

I certify that FRC-850 Blend is in compliance with the above specifications and physical property criteria.

A handwritten signature in blue ink, appearing to read 'R. Banks'.

Rill Banks

CRACK-CONTAINMENT