



FRC RESOURCES MONO-150 MICRO SYNTHETIC FIBER

FRC MONO-150, micro-reinforcement system for concrete—100 percent virgin homopolymer polypropylene multifilament (monofilament) fibers with e3® patented technology containing no reprocessed olefin materials. Specifically engineered and manufactured by Sika (formerly Propex) in an ISO 9001 certified manufacturing facility for use as concrete reinforcement. FRC MONO-150 is private labeled for FRC Resources and meets all the same codes and standards as Fibermesh 150.

FEATURES & BENEFITS

- Inhibits and controls the formation of intrinsic cracking in concrete
- Increases cohesion and reduces segregation
- Reduces settlement and bleeding
- Reduces plastic shrinkage and settlement cracking
- Increases impact and shatter resistance
- Reinforces against abrasion
- Reduces freeze/thaw damage
- Provides durability
- Reduces explosive spalling due to fire and high heat
- Alternative system to traditional reinforcement when used for secondary (crack control reinforcing in concrete)

PRIMARY APPLICATIONS

Applicable to all types of concrete which demonstrate a need for resistance to intrinsic cracking, improved water tightness and an aesthetic finish.

- Slabs-on-ground
- Sidewalks
- Driveways
- Stucco
- Shotcrete
- Overlays & toppings
- Roads and pavement
- Tanks and pools
- Self compacting concrete

COMPLIANCE

- Complies with ASTM C 1116/C 1116M, Type III fiber reinforced concrete
- ISO 9001 Quality Assured Facility

CHEMICAL AND PHYSICAL PROPERTIES

Absorption	Nil	Ignition Point	759.2°F (404°C)
Acid & Salt Resistance	High	Melt Point	320°F (160°C)
Alkali Resistance	Alkali Proof	Specific Gravity	0.91
Electrical Conductivity	Low	Thermal Conductivity	Low
Fiber Length	¾" & ½" Graded	Tensile Strength	40-60 ksi
Specific Gravity	0.91	Tensile MOE	500 ksi

ADVANTAGES OF FRC MONO-150 MICRO FIBERS:

- Non-magnetic
- Rustproof
- Alkali proof
- Requires no minimum amount of concrete cover
- Always positioned in compliance with codes
- Safe and easier to use than traditional reinforcement
- Reduces construction time

FRC MONO-150 FIBERS:

- Should not be used for replacing any moment or structural steel

PRODUCT USE

MIXING: FRC MONO-150 micro reinforcing is a mechanical, not chemical, process. The addition of FRC MONO-150 multifilament fiber does not require any additional water or other mix design changes at normal rates. FRC MONO-150 fiber is added to the mixer during or after batching the other concrete materials. After the addition of the fibers, the concrete should be mixed for a sufficient time (batch plant: minimum 5 minutes or 70 revolutions) to ensure uniform distribution of the fibers throughout the concrete mix.

PLACING: FRC MONO 150 micro-reinforced concrete can be pumped, sprayed or placed using conventional equipment.

FINISHING: FRC MONO-150 micro-reinforced concrete can be finished by normal finishing techniques such as, exposed aggregate, broomed and tined surfaces.

APPLICATION RATE: Standard recommended addition rate is 1.5 lb/yd³ Local Building Code requirement may differ.

GUIDELINES

FRC MONO-150 fibers should not be used to replace structural, loadbearing reinforcement. FRC MONO-150 fibers should not be used as a means of using thinner concrete sections than original design.

FRC MONO-150 fibers should not be used to increase joint spacing past those dimensions suggested for un-reinforced concrete.

COMPATIBILITY

FRC MONO-150 fibers are compatible with all concrete admixtures and performance enhancing chemicals.

SAFETY

No special handling is required with FRC MONO-150 fibers. Full Safety Data Sheets are available on request.

PACKAGING

FRC MONO-150 fibers are available in a variety of packaging options. The .75, 1.0, 1.5 and 7.5 lb bags are standard in North America. Bags are packed into cartons, palletized and shrink-wrapped for protection during shipping. Special packaging is available for full truckload addition. Store materials in a cool dry place. Do not store in direct sunlight.

TECHNICAL SERVICES

Trained FRC Resources Fiber specialists are available to assist and advise in specifications and field service. FRC Resources Fiber representatives do not engage in the practice of engineering or supervision of projects and are available solely for service and support of our customers.

REFERENCE DOCUMENTS

- ACI 304 Guide for Measuring, Mixing, Transporting and Placing Concrete
- ACI 506 Guide for Shotcrete
- ASTM C1116/C1116M Standard Specification for Fiber-Reinforced Concrete and Shotcrete
- Concrete Society (UK) Technical Report 34 Concrete Industrial Floors

SPECIFICATION CLAUSE

Fibers for concrete shall be FRC Resources MONO-150, 100 percent virgin polypropylene multifilament fibers, e3® patented technology, containing no reprocessed olefin materials. The fibers shall conform to ASTM C1116 Type III, manufactured in a ISO 9001 facility and specifically for the secondary reinforcement of concrete. Fiber manufacturer shall document evidence of ten year satisfactory performance history. FRC Resources MONO-150 fibers shall be added to the concrete at the batching plant at the recommended application rate of 1.5 lbs/yd³ and mixed for a sufficient time (5 minutes at full mixing speed) to ensure uniform distribution of the fibers throughout the concrete. Fibrous concrete reinforcement shall be supplied by FRC Resources, Seminole, FL. 33772. Tel: 727.433.4350, website: www.FRCresources.com.

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FRC RESOURCES PROVIDES MICRO SYNTHETIC, MARCO SYNTHETIC, STEEL AND BLENDED FIBERS.

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