

FIBERMESH® I50

PRODUCT DATA SHEET



FIBERMESH® I50 SYNTHETIC FIBER

Fibermesh I50, formerly Stealth® e3®, micro-reinforcement system for concrete—100 percent virgin homopolymer polypropylene multifilament fibers containing no reprocessed olefin materials. Specifically engineered and manufactured in an ISO 9001:2000 certified facility for use as concrete reinforcement at an application rate of 1.0 to 1.5 lbs per cubic yard (.60 to .90 kg per cubic meter). UL Classified. Complies with National Building Codes and ASTM C III6/C III6M, Type III fiber reinforced concrete.

ADVANTAGES

Non-magnetic • Rustproof • Alkali proof • Requires no minimum amount of concrete cover • Is always positioned in compliance with codes • Safe and easy to use • Saves time and hassle.

FEATURES & BENEFITS

- Inhibits and controls the formation of intrinsic cracking in concrete
- Reinforces against impact forces
- Reinforces against abrasion
- Reinforces against the effect of shattering forces
- Reinforces against water migration
- Provides improved durability
- Reduces plastic shrinkage and settlement cracking
- Alternate 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 and improved water tightness and an aesthetic finish.

- Slabs-on-ground
- Stucco
- Slope paving
- Sidewalks
- Curbs
- Exposed aggregate
- Driveways
- Overlays & toppings

CHEMICAL AND PHYSICAL PROPERTIES

Absorption	Nil	Melt Point	324°F (162°C)
Specific Gravity	0.91	Ignition Point	1100°F (593°C)
Fiber Length*	Graded	Thermal Conductivity	Low
Electrical Conductivity	Low	Alkali Resistance	Alkali Proof
Acid & Salt Resistance	High		

*Also available in single cut lengths

DO SPECIFY FIBERMESH I50 FIBERS:

- Reduced plastic shrinkage cracking
- Improved impact, shatter and abrasion resistance
- Reduced water migration and damage from freeze/thaw
- Improved durability
- Areas requiring non-metallic materials
- Concrete that needs an architectural finish

DO NOT SPECIFY FIBERMESH I50 FIBERS:

- Crack control from external stresses
- Increasing joint spacing beyond ACI and PCA guidelines
- Decreasing thickness of slabs
- Replacing any moment or structural steel

FIBERMESH® 150

PRODUCT USE

MIXING DESIGNS AND PROCEDURES: Fibermesh® 150 micro reinforcing is a mechanical, not chemical, process. The addition of Fibermesh 150 multifilament fibers do not require any additional water or other mix design changes at normal rates. Fibermesh 150 fibers are added to the mixer before, during or after batching the other concrete materials. Mixing time and speed are specified in ASTM C 94.

FINISHING: Fibermesh 150 micro-reinforced concrete can be finished by any finishing technique. Exposed aggregate, broomed and tined surfaces are no problem.

APPLICATION RATE: The application rate for Fibermesh 150 fibers is 1.0 to 1.5 lbs per cubic yard (.60 to .90 kg per cubic meter). Note: .75 lbs per cubic yard (.44 kg per cubic meter) may be acceptable based on local building codes.

GUIDELINES

Fibermesh 150 fibers should not be used to replace structural, load-bearing reinforcement. Fibermesh 150 fibers should not be used as a means of using thinner concrete sections than original design. Fibermesh 150 fibers should not be used to increase joint spacing past those dimensions suggested by PCA and ACI industry standard guidelines.

COMPATIBILITY

Fibermesh 150 fibers are compatible with all concrete admixtures and performance enhancing chemicals, but require no admixtures to work.

PACKAGING

Fibermesh 150 fibers are available in a variety of packaging options. Special packaging is available for full truckload addition. Fibermesh 150 fibers are packaged, packed into cartons, shrink-wrapped and palletized for protection during shipping.

TECHNICAL SERVICES

Trained Propex Concrete Systems specialists are available worldwide to assist and advise in specifications and field service. Propex Concrete Systems 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

- ASTM C 94/C 94M Standard Specification for Ready-Mixed Concrete.
- ASTM C 1116/C 1116M Standard Specification for Fiber-Reinforced Concrete.
- ASTM C 1399 Standard Test Method for Obtaining Average Residual-Strength of Fiber-Reinforced Concrete.
- ASTM C 1436 Standard Specification for Materials for Shotcrete.
- ASTM C 1609/C 1609M Standard Test Method for Flexural Performance of Fiber-Reinforced Concrete (Using Beam With Third-Point Loading). Replaces ASTM C 1018.
- ACI 304 Guide for Measuring, Mixing, Transporting and Placing Concrete.
- ACI 506 Guide for Shotcrete.
- International Code Council (ICC) NER-414 Evaluation Report.



UL® Classified: Type Fibermesh 150. For use as an alternate or in addition to the welded wire fabric used in Floor-Ceiling D700, D800, D900 Series Designs. Fibers may also be used in Floor-Ceiling Design Nos. G229, G243, G256, G514. Fiber added to concrete mix at a rate of 1.0 lb of fiber for each cubic yard of concrete.

SPECIFICATION CLAUSE

Use Fibermesh 150 only 100 percent virgin polypropylene multifilament fibers containing no reprocessed olefin materials and specifically engineered and manufactured in an ISO 9001:2000 certified facility for use as concrete secondary reinforcement. Application per cubic yard shall equal a minimum of 1.0 lb/yd³ (.60 kg/m³). Fibers are for the control of cracking due to plastic shrinkage, plastic settlement and thermal expansion/contraction, lowered permeability, increased impact, abrasion and shatter resistance. Fiber manufacturer shall document evidence of ten year satisfactory performance history, ISO 9001:2000 certification of manufacturing facility, compliance with applicable building codes and ASTM C 1116/C 1116M, Type III fiber reinforced concrete. Fibrous concrete reinforcement shall be manufactured by Propex Concrete Systems, 6025 Lee Highway, Suite 425, PO Box 22788, Chattanooga, TN 37422, USA, tel: 423 892 8080, fax: 423 892 0157, web site: fibermesh.com.

PROPEX® | THE ADVANTAGE CREATORS.™
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