

PRODUCT DATA • SIKA® FIBERMESH® 300-e3®



SIKA FIBERMESH 300 SYNTHETIC FIBER

Sika Fibermesh 300, micro-reinforcement system for concrete—100 percent virgin homopolymer polypropylene fibrillated fibers with e3 patented technology containing no reprocessed olefin materials. Specifically engineered and manufactured in an ISO 9001 certified manufacturing facility for use as concrete reinforcement.

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. Replacement for typical light gauge welded wire reinforcement - 6 x 6 W1.4 X W1.4 (152 x 152 MW9.1 x MW9.1), depending on application.
- Increases impact and shatter resistance
- Reinforces against abrasion
- Reduces freeze/thaw damage
- Provides durability
- 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 and improved water tightness and an aesthetic finish.

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

COMPLIANCE

- Complies with European Standard EN 14889-2:2006 Fibres for Concrete Part 2: Class Ib and carries CE marking
- UL Classified: 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
- 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	Graded		

*Also available in single cut lengths

ADVANTAGES OF SIKA FIBERMESH 300 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

SIKA FIBERMESH 300 FIBERS:

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

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PRODUCT USE

MIXING: Fibermesh 300 micro reinforcing is a mechanical, not chemical, process. The addition of Fibermesh 300 fibrillated fiber does not require any additional water or other mix design changes at normal rates. Fibermesh 300 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. Mixing times may vary please contact Sika Fiber representative.

PLACING: Fibermesh 300 micro-reinforced concrete can be pumped, sprayed or placed using conventional equipment.

FINISHING: Fibermesh 300 micro-reinforced concrete can be finished by normal finishing techniques such as, exposed aggregate, broomed and tined surfaces.

APPLICATION RATE: The standard application rate for Fibermesh 300 fibers is a minimum 1.5 lbs/yd³ (0.9 kg/m³). For specialty performance see your local Sika Fiber representative for recommendations regarding increased application rates.

GUIDELINES

Fibermesh 300 fibers should not be used to replace structural, load-bearing reinforcement. Fibermesh 300 fibers should not be used as a means of using thinner concrete sections than original design. Fibermesh 300 fibers should not be used to increase joint spacing past those dimensions suggested for un-reinforced concrete.

COMPATIBILITY

Fibermesh 300 fibers are compatible with all concrete admixtures and performance enhancing chemicals.

SAFETY

No special handling is required with Fibermesh 300 fibers. Full Safety Data Sheets are available on request.

PACKAGING

Fibermesh 300 fibers are available in a variety of packaging options. Bags are packed into cartons, palletized and shrink-wrapped for protection during shipping. Special packaging is available for full truckload addition, such as bulk bag. Store materials in a cool dry place. Do not store in direct sunlight.

TECHNICAL SERVICES

Trained Sika Fiber specialists are available worldwide to assist and advise in specifications and field service. Sika 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
- Concrete Society (UK) Technical Report 22 Non-Structural cracks in concrete
- European Standard EN 14889-2: 2006 Fibres for Concrete

SPECIFICATION CLAUSE

Fibers for concrete shall be Sika Fibermesh 300, 100 percent virgin polypropylene fibrillated fibers, e3 patented technology patented technology, containing no reprocessed olefin materials. The fibers shall conform to ASTM C1116 Type III and manufactured specifically for the secondary reinforcement of concrete.

or

Fibers for concrete shall be Sika Fibermesh 300, 100 percent virgin polypropylene fibrillated fibers, e3 patented technology, containing no reprocessed olefin materials. The fibers shall conform to EN 14889-2: 2006 Class Ib and manufactured specifically for the secondary reinforcement of concrete.

The fibers shall be manufactured in an ISO 9001 certified manufacturing facility. Unless otherwise stated, Sika Fibermesh 300 fibers shall be added to the concrete at the batching plant at the recommended application rate oflbs/yd³ (..... kg/m³) and mixed for a sufficient time (minimum 5 minutes at full mixing speed) to ensure uniform distribution of the fibers throughout the concrete. Fibrous concrete reinforcement shall be manufactured by Sika Fiber, LLC, 4019 Industry Drive, Chattanooga, TN. 37416 USA, tel: 833.236.1255, web site: www.Fibermesh.com.

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