PRODUCT DATA • SIKA® FIBERCAST® 500



ADVANTAGES OF SIKA FIBERCAST 500 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 FIBERCAST 500 FIBERS:

 Should not be used for replacing any moment or structural steel

SIKA FIBERCAST 500 MICRO-SYNTHETIC FIBER

Sika Fibercast 500, micro-reinforcement system for concrete is 100 percent virgin homopolymer polypropylene fine fibers containing no reprocessed olefin materials. Specifically engineered and manufactured in ISO 9001 certified manufacturing facility for use as reinforcement for precast concrete applications.

FEATURES & BENEFITS

- · Provides increased green (early age) strength
- Increases cohesion and reduces segregation
- Inhibits and controls the formation of intrinsic cracking in concrete
- · Reduces plastic shrinkage and settlement cracking
- · Reinforces against the effect of shattering forces
- · Reinforces against abrasion
- · Reduces freeze/thaw damage
- · Inhibits water migration
- · Imparts toughness to hardened concrete
- · Permits thicker layer per passing of sprayed concrete
- · Reduces rebound and material waste in sprayed concrete

PRIMARY APPLICATIONS

- Precast
- Hazardous material storage
- Septic tanks

- Stucco
- Agricultural products
- Tanks and storage

- Marine products
- Walls

Shotcrete

COMPLIANCE

- Complies with European Standard EN 14889-2:2006 Fibres for Concrete Part 2: Class 1b and carries CE marking
- Complies with ASTM C 1116/C 1116M, Type III fiber reinforced concrete ISO 9001 Quality Assured Facility
- Complies with International Code Council (ICC) Acceptance Criteria (AC) 032

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	0.25 - 2 in		
	(6.35 - 50 mm)		

^{*}Also available in single cut lengths

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PRODUCT USE

MIXING: Fibercast 500 micro reinforcing is a mechanical, not chemical, process. The addition of Fibercast 500 fiber does not require any additional water or other mix design changes at normal rates. Fibercast 500 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 (minimum 5 minutes) to ensure uniform distribution of the fibers throughout the concrete mix. PLACING: Fibercast 500 micro-reinforced concrete can be pumped, sprayed or placed using conventional equipment FINISHING: Fibercast 500 micro-reinforced be finished bv normal finishing techniques. APPLICATION RATE: The standard application rate for Fibercast 500 fibers is a minimum of 1.5 lbs/yd³ (0.9 kg/m³). For specialty performance see your local Sika Fiber representative for recommendations regarding increased application rates.

GUIDELINES

Fibercast 500 fibers should not be used to replace structural, load bearing reinforcement. Fibercast 500 fibers should not be used as a means of using thinner concrete sections than original design. Fibercast 500 fibers should not be used to increase joint spacing past those dimensions suggested for un-reinforced concrete.

COMPATIBILITY

Fibercast® 500 fibers are compatible with all concrete admixtures and performance enhancing chemicals.

SAFETY

No special handling is required with Fibercast 500 microsynthetic fibers. Full Safety Data Sheets are available on request.

PACKAGING

Fibercast 500 fibers are available in a variety of packaging options. Special packaging is available for full truckload addition. Bags are packed into cartons, palletized and shrink-wrapped for protection during shipping. 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

- ASTM C1116/C1116M Standard Specification for Fiber-Reinforced Concrete and Shotcrete
- European Standard EN 14889-2: 2006 Fibres for Concrete

SPECIFICATION CLAUSE

Fibers for concrete shall be Sika Fibercast 500 micro-synthetic fine fibrillated fibers 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 Fibercast 500 micro-synthetic fine fibrillated fibers containing no reprocessed olefin materials. The fibers shall conform to EN 14889-2: 2006 Class 1b 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 Fibercast 500 fibers shall be added to the concrete at the batching plant at the recommended application rate 1.5 lbs/yd³ (0.9 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 Fibers LLC, 4019 Industry Drive, Chattanooga, TN. 37416 USA, tel: 833.236.1255, web site: www.Fibermesh.com.

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