FIBERCAST® 500-12mm

PRODUCT DATA SHEET

FIBERCAST® 500-12mm MICRO-SYNTHETIC FIBRE

Fibercast® 500-12mm, formerly Harbourite®12mm, micro-reinforcement system for concrete is 100 percent virgin homopolymer polypropylene fine fibrillated fibres containing no reprocessed olefin materials. Fibercast® 500-12mm fibres are European Standard EN 14889-2:2006 compliant and have been specifically engineered and manufactured in an ISO 9001-2000 certified facility for use as reinforcement for precast concrete elements and other special cementitious mixes at the recommended dosage rate of 0.9 kg per cubic metre (0.1% by volume) for effective performance.

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

- Provides increased green (early age) strength
- Increases cohesion and reduces segregation
- Reduces settlement and bleeding
- Inhibits and controls the formation of intrinsic cracking in concrete
- Reduces plastic shrinkage and settlement cracking
- Increases impact and shatter resistance
- Reinforces against abrasion
- Reduces freeze/thaw damage
- Provides improved toughness/ durability
- Provides residual strength
- Reduces rebound and material waste in sprayed concrete
- Permits thicker layer per pass in sprayed concrete
- Alternate system to traditional reinforcement when used for secondary (crack control) reinforcing in concrete.

PRIMARY APPLICATIONS

- Precast concrete elements
- Sand/Cement Screeds
- Overlays/ Toppings
- Mortars
- Sprayed Concrete
- Refractory products

COMPLIANCE

- Complies with European Standard EN 14889-2:2006 Fibres for Concrete Part 2: Class 1b and carries CE marking
- ISO 9001-2000 Quality Assured
- Complies with ASTM C 1116 Type III 4.1.3

CHEMICAL & PHYSICAL PROPERTIES

Fibre Length	12 mm	Acid & Salt Resistance	High
Type	Fine Fibrillated	Melt Point	162°C (324°F)
Absorption	Nil	Ignition Point	593°C (1100°F)
Specific Gravity	0.91	Thermal Conductivity	Low
Electrical Conductivity	Low	Alkali Resistance	Alkali Proof

PROPEX
CONCRETE SYSTEMS

FIBERCAST® 500-12mm

PRODUCT USE

MIXING DESIGNS AND PROCEDURES: Fibercast® 500-12mm micro reinforcing is a mechanical, not chemical, process. The addition of Fibercast® 500-12mm fine fibrillated fibres do not require any additional water nor other mix design changes at normal rates. Fibercast® 500-12mm fibres can be added to the mixer before, during or after batching the other concrete materials. After the addition of the fibres, the concrete should be mixed for sufficient time (minimum 5 minutes at full mixing speed) to ensure uniform distribution of fibres throughout the concrete.

PLACING: Fibercast® 500-12mm micro-reinforced concrete can be pumped, sprayed or placed using conventional equipment. Hand or vibratory screeds and laser screeds can be used with Fibercast® 500-12mm micro-reinforced concrete.

FINISHING: Fibercast® 500-12mm micro-reinforced concrete can be finished by any finishing technique. Exposed aggregate, broomed and tined surfaces are no problem.

DOSAGE RATE: The recommended dosage rate for Fibercast® 500-12mm fibres, to achieve effective performance, is 0.9 kg per cubic metre. For speciality performance please contact your local Propex Concrete Systems representative for recommendations regarding increased application rates.

GUIDELINES

Fibercast® 500-12mm fibres should not be used to replace structural, load bearing reinforcement. Fibermesh® 500-12mm fibres should not be used as a means of using thinner concrete sections than original design. Fibercast® 500-12mm fibres should not be used to increase joint spacing past those dimensions suggested for un-reinforced concrete.

COMPATIBILITY

Fibercast® 500-12mm fibres are compatible with all concrete admixtures and performance enhancing chemicals, but require no admixtures to work.

SAFETY

No special handling is required with Fibercast® 500-12mm fibres. Full Material Safety Data Sheets are available on request.

PACKAGING

Fibermesh®500-12mm fibres are available in standard 0.9 kg degradable paper bags, which are designed to be placed directly into the concrete mixer without opening. They are also available upon request in a variety of packaging options to suit application. Fibermesh® 500-12mm fibres are packaged, packed into cartons, shrink wrapped and palletized for protection during shipping.

TECHNICAL SERVICES

Propex Concrete Systems is backed by our team of reinforced concrete specialists who can carefully analyze each project and provide fibre reinforced concrete design solutions to ensure maximum project performance and cost efficiency.

REFERENCES

- European Standard EN 14889-2: 2006 Fibres for Concrete

SPECIFICATION CLAUSE

Fibres for concrete shall be Fibercast® 500-12mm micro-synthetic fine fibrillated fibres (100 percent virgin polypropylene fibres containing no reprocessed olefin materials) conforming to EN 14889-2: 2006 Class Ib specifically engineered and manufactured in an ISO 9001-2000 certified facility for use as concrete secondary reinforcement. Unless otherwise stated, Fibercast® 500-12mm fibres shall be added to the concrete at the batching plant at the recommended application rate of 0.9 kg per cubic metre and mixed for sufficient time (minimum 5 minutes at full mixing speed) to ensure uniform distribution of the fibres throughout the concrete. Fibrous concrete reinforcement shall be manufactured by:

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