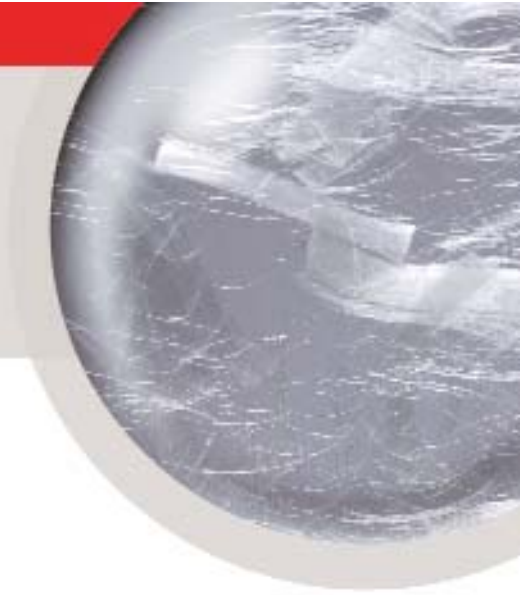
FIBERMESH® 150-e3

PRODUCT DATA SHEET



FIBERMESH® 150-e3 MICRO SYNTHETIC FIBRE

Fibermesh®150-e3, formerly known as Stealth®e3®, micro-reinforcement fibres for concrete are 100 percent virgin homopolymer polypropylene graded monofilament fibres containing no reprocessed olefin materials. Fibermesh® 150-e3 micro-synthetic 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 concrete reinforcement 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

- 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 improved durability
- Alternative system to traditional reinforcement when used for secondary (crack control) reinforcing in concrete.

e3 Technology

e3™ technology is another innovative development pioneered by Propex Concrete Systems.
Just as graded aggregates enhance concrete, Fibermesh®150 with e3 technology is a blend of graded fibres designed to enhance the distribution and performance of fibre reinforcement. Each package of Fibermesh®150-e3 fibres is engineered in three ways - by length, thickness and mix ratio. The result is superior combinations of crack control and overall concrete performance.

PRIMARY APPLICATIONS

- Ground supported slabs
- External roads & pavements
- Driveways
- Sprayed concrete
- Precast
- Overlays and toppings
- Tanks & pools
- Walls

COMPLIANCE

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

CHEMICAL & PHYSICAL PROPERTIES

Fibre Length	Graded	Acid & Salt Resistance	High
Type	Monofilament	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

FIBERMESH® 150-e3

PRODUCT USE

MIXING DESIGNS AND PROCEDURES: Fibermesh® 150-e3 micro-reinforcement is a mechanical, not chemical, process. The addition of Fibermesh® 150-e3 graded monofilament fibres do not require any additional water nor other mix design changes at normal rates. Fibermesh® 150-e3 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: Fibermesh® 150-e3 micro-reinforced concrete can be pumped, sprayed or placed using conventional equipment. Hand or vibratory screeds and laser screeds can be used with Fibermesh® 150-e3 micro-reinforced concrete.

FINISHING: Fibermesh® 150-e3 micro-fibre 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 Fibermesh® 150-e3 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

Fibermesh® 150-e3 fibres should not be used to replace structural, load bearing reinforcement. Fibermesh® 150-e3 fibres should not be used as a means of using thinner concrete sections than original design. Fibermesh® 150-e3 fibres should not be used to increase joint spacing past those dimensions suggested for un-reinforced concrete.

COMPATIBILITY

Fibermesh® 150-e3 fibres are compatible with all concrete admixtures and performance enhancing chemicals, but require no admixtures to work.

SAFETY

No special handling is required with Fibermesh® 150-e3 fibres. Full Material Safety Data Sheets are available on request.

PACKAGING

Fibermesh® 150-e3 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® 150-e3 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
- Concrete Society (UK) Technical Report 34 Concrete Industrial Floors
- Concrete Society (UK) Technical Report 22 Non-structural cracks in concrete.
- Fibermesh® Guidance notes for Fibermesh Reinforced concrete ground supported slabs.

SPECIFICATION CLAUSE

Fibres for concrete shall be Fibermesh®150-e3 micro-synthetic graded fibres (100 percent virgin polypropylene fibres containing no reprocessed olefin materials) conforming to EN 14889-2:2006 Class Ia and specifically engineered & manufactured in an ISO 9001-2000 certified facility for use as concrete secondary reinforcement. Fibermesh® 150-e3 fibres shall be added to the concrete at the batching plant at the recommended dosage 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:

Propex Concrete Systems, Propex House, 9 Royal Court,
Basil Close, Chesterfield, Derbyshire, S41 7SL. United Kingdom.
Telephone: + 44 (0) 1246 564200, Fax: + 44 (0) 1246 564201,
e-mail: enquiries@propexinc.co.uk

PROPEX
CONCRETE SYSTEMS

USA
4019 Industry Drive
Chattanooga, Tennessee 37416
TEL: (423) 892-8080
FAX: (423) 892-0157

INTERNATIONAL
Propex House, 9 Royal Court, Basil Close,
Chesterfield, Derbyshire, S41 7SL. UK
TEL: +44 (0) 1246 564200
FAX: +44 (0) 1246 564201

www.fibermesh.com