



ADVANTAGES OF FIBERMESH 650S :

- 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
- Saves time & hassle

e3® Technology

e3 technology is another innovative development pioneered by Fibermesh.

Just as graded aggregates enhance concrete, Fibermesh® 650S with e3 technology is a blend of graded fibres designed to enhance the distribution and performance of fibre reinforcement. Each package of Fibermesh® 650S fibres is engineered in three ways - by length, thickness and mix ratio. The result is superior combinations of crack control and overall concrete performance.

FIBERMESH 650S

Fibermesh 650S is an engineered graded macro-synthetic fibre featuring e3 patented technology manufactured to an optimum gradation and highly oriented to allow greater surface area contact within the concrete resulting in increased interfacial bonding and flexural toughness efficiency. Fibermesh 650S is specifically engineered and manufactured in an ISO9001:2008 certified facility for use as concrete reinforcement. Complies with European Standard EN 14889-2: 2006 Polymer Fibres - Definitions, specifications and conformity.

FEATURES & BENEFITS

- Graded macro-synthetic fibre for concrete reinforcement
- Greater surface area provides increased flexural toughness (residual strength) equivalent to steel.
- Increases concrete durability - Corrosion free
- Inhibits plastic shrinkage and settlement cracking
- Control of drying shrinkage and temperature cracking
- Pumpable reinforcement with reduced wear on pumps and hoses
- Safe & easy to handle
- Simplified logistics
- Optimized balance between high aspect ratio, performance and finishing
- Economical alternative system to steel mesh and/or steel fibres

PRIMARY APPLICATION

- Sprayed Concrete
- External roads / Pavements
- Precast
- Sea Defence
- Airport pavements
- Slope stabilization

COMPLIANCE

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

CHEMICAL AND PHYSICAL PROPERTIES

Fibre Length	Graded	Tensile Strength	613 MPa
Type	Macro	Acid & Salt Resistance	High
Absorption	Nil	Melt Point	162 °C (324 °F)
Specific Gravity	0.91	Ignition Point	593 °C (1100 °F)
Electrical Conductivity	Low	Thermal Conductivity	Low
Modulus of Elasticity	5400 MPa	Alkali Resistance	Alkali Proof

WE ARE THE CONCRETE FIBRE EXPERTS

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PRODUCT USE

MIXING: Fibermesh® 650S reinforcing is a mechanical, not a chemical process. Due to fibre efficiency, minor mix design modifications may be required depending on the application. Consult your Fibermesh representative for recommendations. Fibermesh® 650S macro-synthetic fibre is added to the mixer before, during or after batching the other concrete materials. Mixing time of at least 5 minutes at mixing speed is required to ensure uniform distribution of the fibres throughout the concrete.

PLACING: Fibermesh 650S reinforced concrete can be pumped, sprayed or placed using conventional equipment.

FINISHING: Conventional techniques and equipment can be used when finishing Fibermesh 650S fibre reinforced concrete.

APPLICATION RATE: The application rate for Fibermesh 650S macro-synthetic fibres will vary depending on the application, mix design and toughness requirements of each particular project. Typically dosage will fall in the range of 3.0 to 8.0 kg per cubic metre. For specific performance and dosage recommendations contact your local Propex representative.

COMPATIBILITY

Fibermesh 650S fibres are compatible with all concrete admixtures and performance enhancing chemicals.

SAFETY

No special handling is required with Fibermesh 650S fibres. Full Material Safety Data Sheets are available on request.

PACKAGING

Fibermesh 650S fibres are available in 1.0 kg degradable paper bags (7 Bags/Cartron), which are designed to be placed directly into the concrete mixer without opening.

Fibermesh 650S macro-synthetic fibres are also available in collated water soluble bundles/pucks packaged in 10 kg cartons. We are also able to provide product in Bulk Sacks for applications which involve automated dosing systems. Store materials in a cool dry place. Do not store in direct sunlight.

TECHNICAL SERVICES

Fibermesh is backed by a 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.

REFERENCE DOCUMENTS

- European Standard EN 14889-2: 2006 Fibres for Concrete
- ASTM C1116/C1116M Standard Specification for Fiber-Reinforced Concrete.
- ASTM C 1399 Average Residual Strength of Fibre Reinforced Concrete.
- ASTM C 1436 Standard Specification for Materials or Shotcrete.
- ASTM C 1609/C 1609M Standard Test Method for Flexural Performance of Fibre Reinforced Concrete (Using Beam With Third-Point Loading). Replaces ASTM C 1018.
- ASTM C 1550 Standard Test Method for Flexural Toughness of Fibre Reinforced Concrete (Using Centrally Loaded Round Panel).
- JCI-SF4 Method of Test for Flexural Strength and Flexural Toughness of Fibre Reinforced Concrete.

SPECIFICATION CLAUSE

Fibres for concrete shall be Fibermesh 650S polyolefin high performance macro-synthetic fibre conforming to EN 14889-2: 2006 Class II and manufactured specifically for the reinforcement of concrete.

Fibermesh 650S macro-synthetic fibres shall be mixed at the batch plant, at the recommended rate ofkg per cubic metre, and mixed for sufficient time (minimum 5 minutes) to ensure uniform distribution of the fibres throughout the concrete mix.

Fibrous concrete reinforcement shall be supplied by:

FIBERMESH AUSTRIA:

Rindler
GmbH

Concrete casted quality

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