Making Good Concrete Better®

Fibermesh® MD Product Bulletin

Description:
Fibermesh® MD micro-reinforcement system for concrete - 100 percent virgin homopolymer polypropylene fibrillated fibers containing no reprocessed olefin materials and specifically engineered and manufactured to an optimum gradation for use as concrete reinforcement at a minimum of 1.0 pound per cubic yard. Complies with ASTM C-1116, *Standard Specification for Fiber-Reinforced Concrete and Shotcrete.*

Function:
Replaces welded wire fabric when used for secondary (crack control) reinforcing in concrete
Inhibits and controls the formation of intrinsic cracking in concrete
Reinforces against impact forces
Reinforces against the effect of shattering forces
Reinforces against material loss from abrading forces
Reinforces against water migration
Provides better durability
Imparts toughness to hardened concrete
Reduces plastic shrinkage and settlement cracking

Advantages:
An alternate method of secondary reinforcing to welded wire fabric, used for non-structural reinforcing- Non-magnetic -Rustproof - Alkali proof - Requires no minimum amount of concrete cover - Is always positioned in compliance with codes - Safe and easy to use - Reduces construction time - Eliminates welded wire fabric hassle on the jobsite.

Uses:
Applicable to all types of concrete which demonstrate a need for toughness and resistance to intrinsic cracking and improved water tightness.

Examples:

Slab on Grade	Sidewalks	Driveways	Stucco
Curbs	Precast	Water Tanks	Overlays/Toppings
Tilt - Up Panels	Mortar	Composite Decks	Maintenance Jobs
Slope Paving	Walls	Thin Sections	Shotcrete

Chemical and Physical Properties:

Absorption	Nil	Specific Gravity	0.91
Fiber Length	MultiDesign (MD)	Modulus (Young's)	0.5 (3.5 kN/mm^2)
Melt Point	324 °F	Ignition Point	1,100 °F
Thermal Conductivity	Low	Electrical Conductivity	Low
Acid & Salt Resistance	High	Alkali Resistance	Alkali Proof

Technical Services:
Trained Fibermesh fibrous concrete specialists are available worldwide to assist and advise in specifications and field service. Fibermesh representatives do not engage in the practice of engineering or supervision of projects and are available solely for service and support of Fibermesh customers.

Application Rate:
The application rate for Fibermesh fibers is 1.0 pounds per cubic yard. For specialty performance see your local Fibermesh representative for recommendations regarding increased application rates.

Mix Designs:
Fibermesh micro-reinforcing is a mechanical, not chemical, process. The addition of Fibermesh fiber does **not** require any additional water nor other mix design changes at normal rates.

Mixing Procedures:
Fibermesh fiber is added to the mixer before, during or after batching the other concrete materials. Mixing time and speed are specified in ASTM C-94

Finishability:
Fibermesh micro-reinforced concrete can be finished by any finishing technique. Exposed aggregate, broomed and tined surfaces are no problem.

Compatibility:
Fibermesh is compatible with all concrete admixtures and performance enhancing chemicals, but requires no admixtures to work.

Guidelines:
Fibermesh fibers should not be used to replace structural, load bearing reinforcement. Fibermesh fibers should not be used as a means of using thinner concrete sections than original design. Fibermesh fibers should not be used to increase joint spacing past those dimensions suggested by PCA and ACI industry standard guidelines.

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

Mini-Specification:
Use only 100 percent virgin graded polypropylene fibers containing no reprocessed olefin materials and specifically manufactured to an optimum gradation for use as concrete secondary reinforcement. Application per cubic yard shall equal a minimum of 1.0 pound per cubic yard of concrete. Fibers are for the control of cracking due to drying shrinkage and thermal expansion/contraction, reduction of permeability, increased impact capacity, shatter resistance, abrasion resistance and added fibrillated toughness. Fiber manufacturer must document evidence of 5 year satisfactory performance history, compliance ASTM C-1116 Type III, 4.1.3. Fibrous concrete reinforcement shall be manufactured by Fibermesh, division of Synthetic Industries, 4019 Industry Drive, Chattanooga, Tennessee, USA, 37416. Phone: (423) 892-7243. Fax: (423) 499-0753.

Fibermesh® Division Offices

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