



Stealth® e3™ Product Bulletin

Description:

Stealth® e3 micro-reinforcement system for concrete - 100 percent virgin homopolymer polypropylene graded multifilament fibers containing no reprocessed olefin materials and specifically engineered and manufactured in an ISO 9002 certified facility for use as concrete secondary reinforcement. UL Classified. Complies with National Building Codes and ASTM C-1116 Type III 4.1.3. This product produces over twenty one million fibers per one and one half pound.

Function:

- Inhibits and controls the formation of intrinsic cracking in concrete
- Reinforces against impact forces
- Reinforces against abrasion
- Reinforces against the effect of shattering forces
- Reinforces against water migration
- Provides improved durability
- Reduces plastic shrinkage and plastic settlement cracking
- Alternate system to traditional reinforcement when used for secondary (crack control) reinforcing in concrete

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 - Reduces construction time.

Uses:

Applicable to all types of concrete which demonstrate a need for resistance to intrinsic cracking and improved water tightness and an aesthetic finish.

Examples:

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

Chemical and Physical Properties:

Absorption	Nil	Melt Point	324° F
Specific Gravity	0.91	Ignition Point	680° F
Fiber Length	Graded	Thermal Conductivity	Low
Electrical Conductivity	Low	Alkali Resistance	Alkali Proof
Acid & Salt Resistance	High		

Technical Services:

Trained Fibermesh® fibrous concrete specialists are available worldwide to assist and advise in specifications and field service. SI Concrete Systems 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 Stealth® e3™ fibers is 1 lb. per cubic yard.

Mix Designs:

Stealth e3 micro reinforcing is a mechanical, not chemical, process. The addition of Stealth e3 fibers does not require any additional water nor other mix design changes at normal application rates.

Mixing Procedures:

Stealth e3 fibers are added to the mixer before, during or after batching the other concrete materials. Mixing time and speed are specified in ASTM C-94.

Finishability:

Stealth e3 micro-reinforced concrete can be finished by any finishing technique. Exposed aggregate, broomed and tined surfaces are no problem.

Compatibility:

Stealth e3 fibers are compatible with all concrete admixtures and performance enhancing chemicals, but requires no admixtures to work.

Guidelines:

Stealth e3 fibers should not be used to replace structural, load bearing reinforcement. Stealth e3 fibers should not be used as a means of using thinner concrete sections than original design. Stealth e3 fibers should not be used to increase joint spacing past those dimensions suggested by PCA and ACI industry standard guidelines.

Packaging:

Stealth e3 fibers are available in a variety of packaging options. Special packaging is available for full truckload addition. Stealth e3 fibers are packaged, packed into cartons, shrink wrapped and palletized for protection during shipping.

Mini-Specification:

Use only 100 percent virgin graded multifilament polypropylene fibers containing no reprocessed olefin materials and specifically engineered and manufactured in an ISO 9002 certified facility for use as concrete secondary reinforcement (Stealth® e3™). Application per cubic yard shall equal a minimum of 1 pound per cubic yard. Fibers are for the control of cracking due to drying shrinkage and thermal expansion/contraction, lowered water migration, increased impact, abrasion and shatter resistance. Fiber manufacturer must document evidence of 5 year satisfactory performance history, compliance with applicable building codes and ASTM C-1116 Type III, 4.1.3. Fibrous concrete reinforcement shall be manufactured by SI Concrete Systems, 4019 Industry Drive, Chattanooga, Tennessee, USA, 37416. Phone: (423) 892-8080, Fax: (423) 892-0157, e-mail: fibermesh@sind.com

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