



It's in the Bag™

PSI FIBER™ PRODUCT DATA

Monofilament Fibers

Description:

PSI Monofilament Fibers™ - Engineered Fibrous Concrete Reinforcement System - 100 per cent virgin homopolymer polypropylene monofilament fiber containing no reprocesses olefin materials and specifically engineered and manufactured for use as secondary reinforcement in ready mix concrete and cement-based building products at the minimum recommended dosage rate of 0.067% by volume (1.0 lb per cubic yard / .67 kg per cubic meter), PSI Fibers™ meet the material specifications described in ASTM C-1116, Type III, Section 4.1.3 "Synthetic Fiber-Reinforced Concrete and Shotcrete".

Function:

- * Reduces in place cost of welded wire fabric when used for secondary (crack control) reinforcement in concrete; inhibits and controls the formation of cracks caused by intrinsic stresses
- * Increases impact, shatter and abrasion resistance of concrete
- * Reduces segregation, plastic settlement and shrinkage cracking
- * Reinforces against water migration; reduces permeability of concrete

Benefits:

PSI Monofilament Fibers™ reduce in place cost of welded wire fabric when used for non-structural secondary temperature and shrinkage crack reinforcement in hardened concrete. Saves construction time & money by eliminating purchase, storage, handling, cutting, placing and waste of welded wire fabric- Always positioned in compliance with codes, automatically - Requires no minimum amount of concrete cover - Safe and easy to use - Non-magnetic - Provides long term durability.

Applications:

PSI Monofilament Fibers™ can significantly enhance the performance of all types of concrete and cement-based building products:

Examples:

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

Application Rate:

The standard recommended dosage rate of PSI Monofilament Fibers™ is 1.0 lb per cubic yard / .67 kg per cubic meter of concrete added directly to the concrete mixing system before, during or after the batching of the other ingredients and mixed at the time and speed recommended by the mixer manufacturer (usually four to five minutes). Additional mixing does not adversely affect the distribution or overall performance of PSI Fibers™. The addition of PSI Fibers™ at the recommended dosage rates to a given mix may appear to decrease the slump. The workability, however, will not be affected and additional water should not be added. Contact your local PSI Fiber™ Representative for alternate dosage rates used in specialty applications.

Chemical and Physical Properties:

Material	100% Virgin Polypropylene		
Fiber Lengths	1/2" (13 mm) & 3/4" (19 mm)		
Absorption	Nil		
Specific Gravity	0.91		
Melt Point	320 ⁰ F - 340 ⁰ F (160 ⁰ C - 170 ⁰ C)	Acid / Salt Resistance	Good
Ignition Point	1,100 ⁰ F (590 ⁰ C)	Thermal Conductivity	Low
Alkali Resistance	Good	Electrical Conductivity	Low

Mix Designs:

The addition of PSI Monofilament Fibers™ at the normal recommended dosage rate does not require any mix design changes.

Finishing:

PSI Fiber™ reinforced concrete can be finished by any finishing technique. PSI Fibers™ do not affect the finishing characteristics of concrete. They are non-corrosive, and will not stain the concrete surfaces. PSI Fibers™ are compatible with power troweled, hand troweled, colored, stamped, dry shake and broom finished concrete.

Compatibility:

PSI Fibers™ are compatible with all concrete admixtures and performance enhancing chemicals.

Packaging:

PSI Fibers™ are supplied in pre-measured ready to use degradable bags. PSI Fibers™ are available in 1/2" and 3/4" lengths. PSI Fibers™ are packaged as follows:

.75 lb bags;	40 bags per box, 36 boxes per pallet, 1,440 bags per pallet, 1,080 net lbs
1.0 lb bags;	30 bags per box, 36 boxes per pallet, 1,080 bags per pallet, 1,080 net lbs
1.5 lb bags;	20 bags per box, 36 boxes per pallet, 720 bags per pallet, 1,080 net lbs
2.0 lb bags;	15 bags per box, 36 boxes per pallet, 540 bags per pallet, 1,080 net lbs

Specification:

Fibers shall have been engineered and manufactured for use as secondary reinforcement in ready mix concrete and cement-based building products. The fibers are to be used for non-structural temperature and shrinkage crack reinforcement in plain concrete as defined in ACI 318.1 and Chapter 26 of the Uniform Building Code. The application rate shall be the minimum recommended dosage rate of 0.067% by volume (1.0 lb per cubic yard / .67 kg per cubic meter). The fibers must meet the material specifications described in ASTM C-1116, Type III, Section 4.1.3 "Synthetic Fiber-Reinforced Concrete and Shotcrete". The fibrous concrete reinforcement shall be manufactured by:

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