



# MaxTen SuperMix FIBER PRODUCT DATA

## MaxTen SuperMix Fibers

### Description:

PSI MaxTen™ SuperMix Fibers - Engineered Fibrous Concrete Reinforcement System - 100 percent virgin blended olefin, non-fibrillating, fully oriented, MacroFilament Fiber combined with a 100 percent virgin polypropylene multifilament fiber to provide a high performance concrete reinforcement system. MaxTen SuperMix Fibers are specifically engineered and manufactured to be used for the reduction of plastic shrinkage cracks, to improve impact, shatter and abrasion resistance, to increase fatigue resistance, to increase toughness and provide long term durability of concrete and cement-based building products. PSI MaxTen SuperMix Fibers meet the material specifications described in ASTM C-1116, Type III, Section 4.1.3 "Synthetic Fiber-Reinforced Concrete and Shotcrete".

### Function:

- \* Reduces or replaces steel fibers and other forms of Steel reinforcement in high performance concrete applications such as industrial floors, loading docks, bridge decks, precast septic tanks, tunnel linings and shotcrete
- \* Increases impact, shatter and abrasion resistance of concrete
- \* Increases fatigue resistance and concrete toughness
- \* Reduces segregation, plastic settlement and shrinkage cracking
- \* Reinforces against water migration; reduces permeability of concrete

### Benefits:

PSI MaxTen SuperMix Fibers™ are an alternate system to 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 - Will not rust or corrode; chemically inert - Non-magnetic - 100% Alkali proof - Provides long term durability.

### Applications:

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

Examples:    Industrial Floors    Bridge Decks    Loading Docks    Shotcrete    Precast

### Application Rate:

The standard recommended dosage rate of PSI MaxTen SuperMix Fibers is 0.2% to 2.0% by volume added directly to the concrete mixing system, 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 MaxTen SuperMix Fibers. The addition of PSI MaxTen SuperMix Fibers at the recommended dosage rates to a given mix will decrease the slump; however, additional water should not be added. A mid-range water reducer or super-plasticizer should be used to provide the desired workability for placement. Contact your local PSI Fiber™ Representative for alternate dosage rates used in specialty applications.

## Chemical and Physical Properties:

Material	100% Virgin Blended Olefin / 100% Virgin Polypropylene
Fiber Type	MacroFilament Fiber / Multifilament Fiber
Fiber Length	2 1/4" (54mm), 1/2" (13 mm)
Absorption	Nil
Specific Gravity	0.91
Tensile Strength	100 - 120 ksi (685 - 825 MPa)
Acid / Salt Resistance	High
Thermal Conductivity	Low
Alkali Resistance	100% (alkali proof)
Electrical Conductivity	Low

## Mix Designs:

The addition of PSI MaxTen SuperMix Fibers at the normal recommended dosage rate does not require any mix design changes. A mid-range water reducer or super-plasticizer is recommended in concrete placements where improved workability and finishability are desired.

## Finishing:

PSI MaxTen SuperMix Fiber reinforced concrete can be finished by most finishing techniques. PSI MaxTen SuperMix Fibers do not affect the finishing characteristics of concrete. They are non-corrosive, alkali proof and will not stain the concrete surfaces. PSI Fibers™ are compatible with power troweled, hand troweled, colored and broom finished concrete.

## Compatibility:

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

## Packaging:

PSI MaxTen SuperMix Fibers are supplied in pre-measured ready to use degradable bags. PSI MaxTen SuperMix Fibers are available in 2 1/4" length and the Multifilament Fibers are available in 1/2" length. PSI MaxTen™ SuperMix Fibers are packaged as follows:

3.75 lb bags;	5 bags per box, 36 boxes per pallet, 180 bags per pallet, 675 net lbs
5.00 lb bags;	4 bags per box, 36 boxes per pallet, 144 bags per pallet, 720 net lbs
7.50 lb bags;	3 bags per box, 36 boxes per pallet, 108 bags per pallet, 810 net lbs
10.0 lb boxes;	96 boxes per pallet, 960 net lbs

## Specification:

Fibers shall be 100% virgin olefin blend, non-fibrillating, fully oriented, MacroFilament fiber combined with a 100% virgin polypropylene multifilament fiber to provide a high performance concrete reinforcement system. Fibers shall have been engineered and manufactured for use as reinforcement in ready mix concrete and cement-based building products. The fibers are to be used to inhibit plastic and settlement shrinkage cracking prior to the initial set and to reduce shrinkage cracking in hardened concrete. The application rate shall be the minimum recommended dosage rate of 0.2% by volume (3.0 lbs per cubic yard / 1.8 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 system shall be manufactured by:

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