

# POLYTAR

## MACRO-SYNTHETIC FIBER FOR CONCRETE

### DESCRIPTION

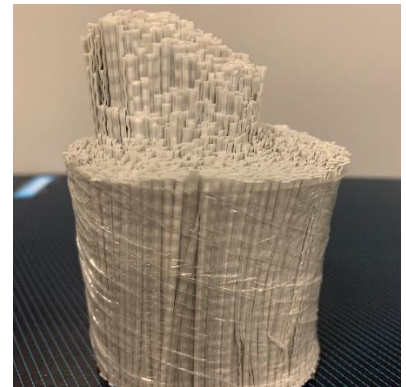
POLYTAR is an easy to finish, made of 100% virgin polypropylene consisting of a monofilament continuously embossed and twisted fiber, yielding a high-performance concrete reinforcement system. It is used to reduce plastic and hardened concrete shrinkage, improve impact strength, increase fatigue resistance and concrete toughness. This extra heavy-duty macro-synthetic fiber offers maximum long-term durability, structural enhancements, and effective secondary/temperature crack control by incorporating a truly unique synergistic fiber system of long length design. POLYTAR is non-corrosive, non-magnetic, and 100% alkali proof! POLYTAR meets the requirements of ASTM C1116 and ASTM D7508.



**POLYTAR-WT700**



**POLYTAR-GT600**



**POLYTAR-EM500**

### APPLICATIONS

- ◆ Slab on Grade
- ◆ Slab on Metal Deck
- ◆ Tunnel Shotcrete / Lining
- ◆ Precast Products
- ◆ Port Paving & Heavy-duty Slabs

### ADVANTAGES

- ◆ Controls plastic and hardened shrinkage cracking of concrete
- ◆ Provides multi-dimensional reinforcement
- ◆ Improves durability and flexural toughness of concrete
- ◆ Improves impact resistance of concrete
- ◆ Alternate to wire mesh/steel reinforcement

## MIXING

POLYTAR can be added directly to the mixing system during or after the batching of the ingredients and mixed at high speed for a minimum of five minutes. Additional mixing does not adversely affect the distribution or overall performance of POLYTAR. The addition of POLYTAR at the normal recommended dosage rate (1.8-5 kg/m<sup>3</sup>) does not require any mix design or application changes. A water reducer or super-plasticizer is recommended in concrete products where improved workability and finish ability are desired.

## FINISHING

Fiber reinforced concrete can be finished by most finishing techniques. POLYTAR does not affect the finishing characteristics of concrete. POLYTAR can be used in power/hand troweled concrete, colored and broom finished concrete.

POLYTAR can be pumped and placed using conventional equipment. Hand screeds can be used, but vibratory and laser screeds are recommended to provide added compaction and bury surface fibers.

## PHYSICAL PROPERTIES

<b>Materials</b>	100% Virgin PP/PE	<b>Length</b>	54 mm
<b>Color</b>	Gray/White/Black	<b>Specific Gravity</b>	0.90-0.92 gr/cm <sup>3</sup>
<b>Filament Diameter</b>	0.5 mm	<b>Tensile Strength</b>	550-650 MPa
<b>Fiber Number</b>	>200.000 per kg	<b>Elastic Modulus</b>	5-6 GPa
<b>Acid/Alkali Resistance</b>	Excellent	<b>CMOD= 0.5 mm</b>	2,1 N/mm <sup>2</sup>
<b>Melting Point</b>	160°C	<b>CMOD= 3.5 mm</b>	2,3 N/mm <sup>2</sup>
<b>Class II-Macro fibers</b>	for structural use	<b>Aspect Ratio</b>	112

## PACKAGING

5 or 10 kg nylon bags. Other packaging like water soluble 1 kg paper bag available upon request.

## STORAGE

POLYTAR should be stored in dry warehouse. Protect product from the sun and rain.