

# GENESIS<sup>TM</sup>

FIBRILLATED FIBER REINFORCEMENT

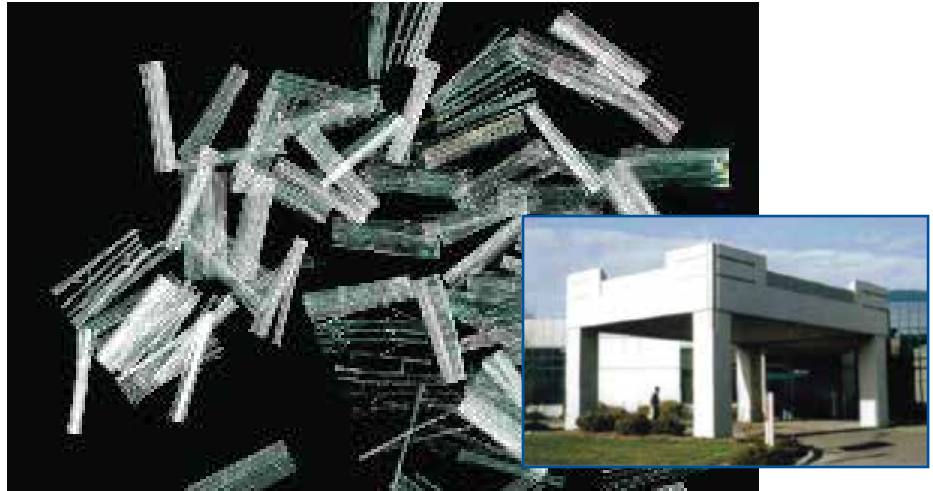
## **FABPRO<sup>TM</sup> Polymers'** **GENESIS<sup>TM</sup>**

### *Fibrillated Synthetic Fiber*

GENESIS<sup>TM</sup> Fibrillated Fibers are manufactured from virgin homopolymer polypropylene resins, and meet the requirements of ASTM C1116/C1116M "Standard Specification for Fiber-Reinforced Concrete", ASTM D7508/D7508M "Standard Specification for Polyolefin Chopped Strands for use in Concrete", and the requirements of ICC ES AC32 Section 3.1.1 for plastic shrinkage reinforcement and 3.1.2 for shrinkage and temperature reinforcement.

#### **RECOMMENDED FOR USE IN:**

- Residential and commercial slabs-on-ground
- Concrete pavement
- Whitetopping and overlays
- Marine elements
- Shotcrete
- Precast products
- Composite metal decks
- Stucco



#### **FEATURES**

GENESIS<sup>TM</sup> Fibrillated Fibers are designed to provide temperature shrinkage crack control, in addition to plastic shrinkage crack control. GENESIS<sup>TM</sup> Fibrillated Fibers are manufactured from virgin homopolymer polypropylene resins, and meet the requirements of ASTM C1116/C1116M "Standard Specification for Fiber-Reinforced Concrete", ASTM D7508/D7508M "Standard Specification for Polyolefin Chopped Strands for use in Concrete", and the requirements of ICC ES AC32 Section 3.1.1 for plastic shrinkage reinforcement and 3.1.2 for shrinkage and temperature reinforcement.

GENESIS<sup>TM</sup> Fibrillated Fibers are an excellent, cost-effective choice for applications requiring increased residual strength resulting from enhanced mechanical bonding that occurs between the fiber and the mortar mix.

#### **BENEFITS**

- Eliminates the need for welded-wire fabric (WWF) as a secondary form of reinforcement. Does not replace primary/structural reinforcement.
- Delivers tight crack control.
- Enhances long-term durability.
- Improves green strengths – permits earlier stripping of forms with less rejection.
- Reduces construction time and overall labor and material costs.
- Increases flexural toughness, impact and abrasion resistance.

## PERFORMANCE CHARACTERISTICS

Specific Gravity	0.91
Melting Point	320°F (160°C)
Ignition Point	1,094°F (590°C)
Absorption	Nil
Alkali Resistance	Excellent
Tensile Strength	44,000 psi (303 MPa)
Length	0.25" (6 mm) – 1.5" (38 mm); plus a Bi-Blend
Aspect Ratio	29 for ¾" cut length
Chemical Resistance	Excellent
Modulus of Elasticity	800 ksi (5.52 GPa)

## GUIDELINES FOR USE

**DOSAGE:** GENESIS™ Fibrillated Fibers are typically added at a dosage rate of 1.5 lb/yd<sup>3</sup> (0.9 kg/m<sup>3</sup>). Different dosage rates may be appropriate depending on the application.

**MIXING:** GENESIS™ Fibrillated Fibers are packaged in premeasured, ready-to-use, degradable bags, designed to be introduced into the mix at any time before, during or after other ready-mixed concrete materials produced in accordance with procedures specified in ASTM C94/C94M.

Standard practices detailed in ACI 302 for placing, finishing and curing concrete should be followed when using GENESIS™ Fibrillated Fibers.

## ENGINEERING SPECIFICATIONS

Use only GENESIS™ Fibrillated Fibers specifically engineered and manufactured for use in concrete as secondary reinforcement. GENESIS™ Fibers are for the control of cracking due to drying shrinkage, thermal expansion and contraction, lowered permeability, increased impact, shatter and abrasion resistance. GENESIS™ Fibers comply with applicable building codes and ASTM C1116/C1116M, Section 4.1.3, Type III.

GENESIS™ Fibrillated Fibers should be specified for use in precast and slab-on-ground concrete:

- To enhance post cure residual strength, toughness and durability
- To enhance post, first-crack performance
- To reduce chipping, cracking & breakage
- To reduce handling & transportation stresses
- To reduce de-molding and stripping issues
- To increase impact & abrasion resistance

FABPRO POLYMERS' GENESIS™ Fibers are not intended to be used as a replacement for structural reinforcement.

**STORAGE AND HANDLING:** GENESIS™ Fibrillated Fibers should be stored at temperatures below 140°F (60°C). Avoid storing near strong oxidizers and avoid sources of ignition. Use caution when stacking to avoid unstable conditions. Store in a sprinkled warehouse.

**PACKAGING:** GENESIS™ Fibrillated Fibers are available in a variety of packaging options. Standard bag size is 1.5 lbs (0.68 kg). Bags are packaged in ultra-durable boxes, palletized, and stretch-wrapped with corner boards to prevent damage from shipping and handling.

**SAFETY DATA SHEETS:** GENESIS™ Fibrillated Fibers

*For additional product information, contact your local sales representative or Customer Service at (800) 821-4391.*

