

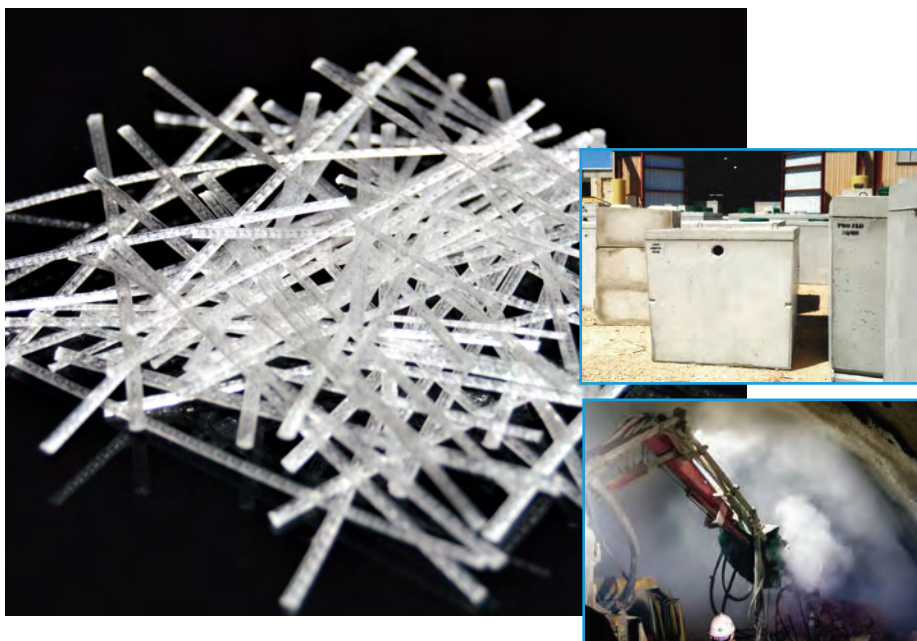


FABPRO™ POLYMERS' **PLEXUS™ 44F/54F** *Synthetic Macrofiber*

PLEXUS™ 44F/54F Synthetic Macrofibers are high tensile fibers manufactured from a blend of 100% virgin polyolefin resins. FABPRO's PLEXUS™ Macrofibers meet the requirements of ASTM C1116/C1116M "Standard Specification for Fiber-Reinforced Concrete".

RECOMMENDED FOR USE IN:

- Precast concrete
- Thin-wall precast
- Composite metal decks
- Industrial and warehouse floors
- Pavements
- Residential and commercial slabs-on-ground
- Wall systems
- White-topping/overlays
- Shotcrete
- Tunnel linings



FEATURES

PLEXUS™ Synthetic Macrofibers are uniquely engineered for slab-on-ground and precast applications with higher tensile strength to provide better "Built-In Reinforcement" as a replacement for steel fibers, welded-wire fabric (WWF) and conventional reinforcing bars in a variety of secondary reinforcement applications. In addition, PLEXUS™ Fibers help to minimize temperature shrinkage cracking, plastic settlement and plastic shrinkage cracking. PLEXUS™ Fibers distribute uniformly throughout the concrete matrix and deliver excellent finish-ability.

FABPRO's proprietary parallel packaging system aligns all of the fibers in the bag to ensure outstanding fiber distribution in the concrete mix and creates a compact package that results in the lowest possible product freight and storage costs.

BENEFITS

- Eliminates the need for WWF and rebar used as secondary reinforcement in most applications.
- Delivers tight crack control.
- Improves green strengths and 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

	PLEXUS™ 44F	PLEXUS™ 54F
Specific Gravity	.91	.91
Melting Point	320°F (160°C)	320°F (160°C)
Ignition Point	1094°F (560°C)	1094°F (560°C)
Absorption	Nil	Nil
Alkali Resistance	Excellent	Excellent
Tensile Strength	87000 psi (600 MPa)	87000 psi (600 MPa)
Modulus of Elasticity	1050 ksi	1050 ksi
Fiber Length	1.73" (44mm)	2.13" (54mm)
Aspect Ratio	62	76
Fiber Count	29,020 fibers/lb for 44F	23,645 fibers/lb for 54F
Chemical Resistance	Excellent	Excellent

ENGINEERING SPECIFICATIONS

PLEXUS™ Synthetic Macrofibers, when used at an appropriate dosage, are an excellent option for the replacement of WWF and rebar as a safe and easy-to-use reinforcing system. The fiber is rust proof, alkali resistant, and compliant with industry codes when used in concrete mixed in accordance with ASTM C94/C94M.

NOTE: The ASTM C1609 test was run with a dosage rate of 5 lbs/yd³ (2.97 kg/m³) of the PLEXUS™ 44F Fibers, and resulted in an average Re,3 of 25.9% over the 3 panels.

The ASTM C1550 test was run with a dosage rate of 10.5 lbs/yd³ (6.23 kg/m³) of the PLEXUS™ 54F Fibers, and resulted in an average of 430 joules over the 3 panels.

GUIDELINES FOR USE

DOSAGE: The minimum dosage rate for PLEXUS™ Synthetic Macrofibers is 3 lb/yd³ (1.78 kg/m³). PLEXUS™ Fibers can be used at dosage rates from 3 lb/yd³ (1.78 kg/m³) up to 13 lb/yd³ (7.71 kg/m³) or the equivalent dosage of 0.2% to 0.9% by volume, unless otherwise specified.

For composite metal deck applications, minimum dosage is 4 lb/yd³ (2.37 kg/m³) as recommended by the Steel Deck Institute (SDI C-1.0) design code provisions.

MIXING: PLEXUS™ Fibers are packaged in pre-weighed, ready-to-use, degradable bags which are designed to be introduced at any time before or during mixing of concrete produced in accordance with procedures specified in ASTM C94/C94M.

STORAGE AND HANDLING: PLEXUS™ Synthetic Macrofiber 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: PLEXUS™ Fibers are packaged in compact, pre-weighed degradable bags weighing from 3 - 15.4 lbs that can be added directly to the mixing system.

SAFETY DATA SHEETS: PLEXUS™ Synthetic Macrofiber

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



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