

PERFORMAXTM
SYNTHETIC MACRO FIBER **ST94**

FABPROTM Polymers'
PERFORMAXTM ST94

Synthetic Macro Fiber

PERFORMAXTM ST94 Synthetic High Tensile Macro Fibers are manufactured from a blend of 100% virgin polyolefin resins. PERFORMAXTM ST94 Synthetic Macro Fibers meet the requirements of ASTM C1116/C1116M "Standard Specification for Fiber-Reinforced 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:

- Industrial and warehouse floors
- Commercial slab construction
- Concrete pavement
- Whitetopping and overlays
- Thin wall precast
- Shotcrete
- Composite metal decks
- Marine elements
- Vaults, septic tanks & containers



FEATURES

PERFORMAXTM ST94 Synthetic High Tensile Macro Fibers are uniquely engineered 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, PERFORMAXTM ST94 Synthetic High Tensile Macro Fibers help to minimize temperature shrinkage cracking, plastic settlement and plastic shrinkage cracking. Other features include:

- Improved worksite safety by eliminating handling of WWF and light rebar
- Uniform distribution of fibers throughout the concrete matrix
- Excellent finish-ability
- Superb post-first crack performance

BENEFITS

- Eliminates the need for WWF and conventional steel bars as a secondary form of reinforcement. Does not replace primary/structural reinforcement.
- Delivers tight crack control.
- Provides excellent plastic shrinkage crack reduction and settlement control.
- 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	0.915
Melting Point	320°F (160°C)
Ignition Point	1,094°F (590°C)
Absorption	Nil
Alkali Resistance	Excellent
Tensile Strength	645 MPa
Aspect Ratio	93
Length	40 mm
Chemical Resistance	Excellent

GUIDELINES FOR USE

DOSAGE: The recommended dosage for the PERFORMAX™ ST94 Synthetic Macro Fibers is 3 lb/yd³ (1.8 kg/m³). It can be used at dosage rates from 3 lb/yd³ (1.8 kg/m³) up to 13 lb/yd³ (7.8 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 (2.4 kg/m³) as recommended by the Steel Deck Institute (SDI C-1.0) design code provisions.

MIXING: PERFORMAX™ ST94 Synthetic Macro 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.

ENGINEERING SPECIFICATIONS

PERFORMAX™ ST94 Synthetic Macro Fiber, when used at an appropriate dosage, is an 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.

PERFORMAX™ ST94 Synthetic Macro Fiber should be specified for use in concrete slabs:

- To enhance residual strength, toughness and durability
- To reduce plastic shrinkage cracking
- To increase abrasion resistance
- To improve impact resistance
- To reduce permeability

FABPRO POLYMERS does not recommend this fiber for use in slabs as a substitute for primary/structural reinforcement.

STORAGE AND HANDLING: PERFORMAX™ ST94 Synthetic Macro 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: PERFORMAX™ ST94 Synthetic Macro Fibers are packaged in preweighed degradable 3 lb (1.36 kg), 4 lb (1.81 kg) and 5 lb (2.27 kg) bags that can be added directly to the mixing system.

SAFETY DATA SHEETS: PERFORMAX™ ST94 Synthetic Macro Fiber

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

