

Advantage Structural Fiber

Fiber Reinforcement for Concrete

Advantage Structural Fiber significantly improves toughness and tensile strength properties of concrete. Improved toughness relates to increased durability, increased service life, increased crack resistance and post-crack load carrying capacity.

Advantage Structural Fiber creates a reinforcement network that prevents shrinkage cracks from forming, and presents a superior alternative to mesh. This network remains intact long after curing providing added surface toughness. **Advantage Structural Fiber** also gives concrete the ability to carry increased loads even when cracks do occur.

GRT recommends the use of a superplasticizer or mid-range water reducer to achieve the required workability when batching with **Advantage Structural Fibers**.

PERFORMANCE

- Increased Toughness
- Higher residual strength concrete
- Good dispersion
- Tight crack control
- Increases cohesion of mixture
- Synthetic fibers not subject to corrosion
- Reduces bleeding of water to the surface
- Increased flexural strength

ADVANTAGES

- Improved internal dimensional stability; reduced surface permeability
- Decreased risk of cracking over rebar
- Greater long-term durability
- Reduced settling and easier finishing
- Reduced inventory, storage and labor costs; allows for fast-track scheduling; provides easier positioning of joints

ADDITION RATES

Advantage Structural Fiber addition rates are dependent on the specific application. Depending on desired performance, addition will vary between 3 and 10 lbs. per cubic yard.

APPLICABLE STANDARDS

Advantage Structural Fiber meets the material specifications described in ASTM C1116, Type III, Section 4.1.3 "Synthetic Fiber Reinforced Concrete".

ASTM C1399-Test Method for Average Residual Strength.

ASTM C1018-Test Method for Flexural Toughness and First Crack Strength of Fiber-Reinforced Concrete (Using Beam With Third-Point Loading).

ASTM C1609 and ASTM C1018-97 Level I, II, III.

Performance characteristics are based on addition rates.

Contact a GRT technical representative for addition rate to comply with desired performance.

PHYSICAL PROPERTIES

Polypropylene blend length:	1.50-1.75
Specific Gravity:	0.9-0.94
Aspect Ratio:	71
Absorption:	NONE
Electrical Conductivity:	LOW
Thermal Conductivity:	LOW
Tensile Strength:	88 ksi
Melting Point:	320°F
Flash Point:	650°F