



MICRO SYNTHETIC

Description

FORTA® ULTRA-LITE® is a specially-treated micro synthetic fiber, made of 100% virgin homopolymer polypropylene monofilament. This fiber provides unique suspension characteristics in a variety of cementitious mixes and applications. Due to the special fiber surface treatment, ULTRA-LITE offers valuable suspension capabilities to gasified or aerated cementitious products, acting as a stabilizing and cohesive agent in very flowable lightweight mixes.

Reinforcement Objective

To create a material suspension and mix stabilization, and to inhibit concrete cracking caused by plastic and settlement shrinkage that occurs prior to initial set.

Physical Properties

Specific Gravity*	1.0
Tensile Strength	83-96 ksi (570-660 MPa)
Length	0.5 in (13 mm)
Melting Point	509°F (265°C)
Material	Virgin Homopolymer Polypropylene
Form	Monofilament
Color	White
Acid / Alkali Resistance	Inert
Absorption	Nil

* Treated form.

Compliance & Certification

- ASTM C1116 / C1116M-10a, Standard Specification for Fiber-Reinforced Concrete, "Type III Synthetic Fiber-Reinforced Concrete"
- ASTM D7508 / D7508M-10(2015), Standard Specification for Polyolefin Chopped Strands for Use in Concrete
- DUNS: 094214129
- CAGE Code: 0AFN8
- NAICS: 325220

Applications

ULTRA-LITE can be used in any air-entrained or lightweight cementitious mix where a reduction in mix separation and segregation and reduced shrinkage characteristics are desirable. ULTRA-LITE fiber reinforced mixes may be placed horizontally or vertically, and above or below ground, and used in a wide variety of application areas, such as slabs, shotcrete, mines, tunnels, site-cast, and precast products.

Performance Benefits

- Increase mixture stabilization and cohesiveness
- Reduce plastic and settlement shrinkage
- Provide 3-dimensional reinforcement against micro-cracking

Recommended Dosage

This product is typically used at a dosage rate of 3.5 lb/cu yd (2.1 kg/cu m) of concrete. Contact FORTA for design assistance and dosage recommendations.

Packaging

	Domestic	International
Bags	3.5 lb	0.6 kg
Cartons	12 bags (42 lb)	30 bags (18 kg)
Pallets	16 cartons/192 bags (672 lb)	12 cartons/360 bags (216 kg)

Recommendations

Addition: ULTRA-LITE is packaged in mixer-ready bags that can be added directly into the concrete mixing system. The fiber should be added during or after batching of the other ingredients – never as the first mix ingredient.

Mixing: When possible, add fibers to a rotating drum. Once all fibers have been added to the batch, mix four to five minutes at standard mixing speed. Road-revolution speed should not be counted as part of the required fiber mixing time.

Slump: Fibers may reduce the visual slump measured by the slump-cone test, but has a lesser effect on flow-ability and workability. To regain any loss of workability or slump, the use of appropriate admixtures is recommended – avoid the addition of water.

Additional Information

Additional information such as the Safety Data Sheet, Certifications, videos and other literature can be found on the forta-ferro.com website. The website also features Project Profiles that show the many applications and benefits of FORTA products first-hand.

Limited Warranty

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