



MICRO SYNTHETIC

Description

FORTA[®] ECONO-CAST[®] is an easy to place micro synthetic fiber, made of 100% virgin homopolymer polypropylene, that has been specifically designed and engineered for the precast industry. This medium-duty fiber offers superior bonding power, long-term durability, and sharper edge control by incorporating a fibrillated pattern and long length option. ECONO-CAST is non-corrosive, chemically inert, and 100% acid and alkali proof.

Reinforcement Objective

To inhibit plastic and settlement shrinkage cracking prior to the initial set, and to reduce hardened concrete shrinkage cracking, improve impact strength, and enhance concrete toughness as an alternate temperature/shrinkage reinforcement.

Physical Properties

Specific Gravity	0.91
Tensile Strength	83-96 ksi (570-660 MPa)
Length	1.5 in (38 mm), 0.75 in (19 mm)
Melting Point	319°F (160°C)
Material	Virgin Homopolymer Polypropylene
Form	Fibrillated
Color	White
Acid / Alkali Resistance	Excellent
Absorption	Nil

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

ECONO-CAST can improve every precast product and is compatible with all precast production manufacturing technologies. It increases production by reducing slumping, cracking, and fallouts during precast stripping procedures. Requires no mix design or placement changes!

Performance Benefits

- Reduce handling stresses
- Increase concrete toughness
- Reduce plastic and hardened concrete shrinkage
- Provide nominal impact strength
- Increase fatigue resistance
- Provide 3-dimensional reinforcement against micro-cracking

Recommended Dosage

This product is typically used at a dosage rate of 1.5 lb/cu yd (0.9 kg/cu m) of concrete. Contact FORTA for design assistance and dosage recommendations.

Packaging

	Domestic	International
Bags	1.5 lb	0.9 kg
Cartons	20 bags	20 bags
Pallets	16 cartons/320 bags	12 cartons/240 bags

Recommendations

Addition: ECONO-CAST 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: Once all fibers have been added to the batch, mix four to five minutes at standard mixing speed.

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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The exclusive remedy for defective product is outlined in FORTA's Standard Terms and Conditions of Sale, available upon request. CONSEQUENTIAL DAMAGES ARE SPECIFICALLY EXCLUDED.

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