



MICRO SYNTHETIC

Description

FORTA® CAST-MASTER® 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 extra heavy-duty fiber offers optimum bonding power, maximum long-term durability, sharper edge control, and quick and uniform fiber distribution by incorporating a unique twisted-bundle technology with a fibrillated pattern and long length option. CAST-MASTER 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
Density	1,534 lb/cu yd (910 kg/cu m)
Tensile Strength	83-96 ksi (570-660 MPa)
Length	2.5 in (60 mm), 2.25 in (54 mm), 1.5 in (38 mm), 0.75 in (19 mm)
Melting Point	319°F (160°C)
Material	Virgin Homopolymer Polypropylene
Form	Fibrillated Twisted Bundle
Color	White
Acid / Alkali Resistance	Excellent
Absorption	Nil

Compliance & Certification

- ASTM C1116 / C1116M-10a, Standard Specification for Fiber-Reinforced Concrete
- ASTM D7508 / D7508M-10(2015), Standard Specification for Polyolefin Chopped Strands for Use in Concrete
- Certified UL / ULC: CBXQ.R18552
- DUNS: 094214129
- CAGE Code: OFAN8
- NAICS: 325220

Applications

CAST-MASTER 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 1.6 lb/cu yd (1.0 kg/cu m) of concrete. Contact FORTA Corporation for design assistance and dosage recommendations.

Packaging

	Domestic	International
Bags	1.6 lb	1.0 kg
Cartons	18 bags	16 bags
Pallets	16 cartons/288 bags	12 cartons/192 bags

Recommendations

Addition: CAST-MASTER 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.

Warranty

FORTA® products are warranted to be free of defects in material and meet all quality control standards set by the manufacturer. FORTA Corporation specifically disclaims all other warranties, express or implied. The exclusive remedy for defective product shall be to replace the product or refund the purchase price. No agent or employee of this company is authorized to vary the terms of this warranty notice. FORTA Corporation has no control over the design, production, placement, or testing of the concrete products in which FORTA® products are incorporated, and therefore FORTA Corporation disclaims liability for the end product.

FORTA reserves the right to change the features and specifications of its products without prior notice.

CAST-MASTER® can be purchased from FORTA Corporation or an authorized FORTA® products distributor, dealer or representative.

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