



## FACT-DATA®

### MANUFACTURER

FORTA CORPORATION, 100 Forta Drive, Grove City, PA, U.S.A., 16127-6399  
TELEPHONE: 1-800-245-0306, (724) 458-5221; FAX: (724) 458-8331; [www.forta-ferro.com](http://www.forta-ferro.com)

### GENERAL DESCRIPTION

FORTA® FERRO-GREEN® is a unique blend of recycled polypropylene and copolymer macro fibers designed specifically for pervious concrete applications. The FERRO-GREEN® blend consists of 100% recycled polypropylene fibrillated (network) fibers and a high-performance twisted-bundle macro-monofilament fiber, designed to mix, distribute, and finish well in pervious concrete mixes. This fiber combination offers a variety of desirable benefits to pervious concrete pavement applications, including increased strength, toughness, freeze-thaw resistance, and durability.

### APPLICATIONS

FERRO-GREEN® is used to toughen any pervious concrete application, such as driveways, curbs and sidewalks, and commercial parking lots and pavements. The three-dimensionally distributed non-corrosive macro fiber blend is one of the few methods available to add true toughness reinforcement to pervious cross-sections, without reducing porosity. FERRO-GREEN® also increases resistance to freeze-thaw damage and raveling, while preserving both the plastic and hardened concrete void structure.

### INSTALLATION

FERRO-GREEN® is generally dosed in a range of 0.17% to 0.5% by volume of concrete, or 2.5 lb. to 7.5 lb. per cubic yard of pervious concrete, depending on the desired level of additional toughness and crack-control required for the application. Examples would be 2.5 lb./cu.yd. for curb and sidewalk applications, 5.0 lb./cu yd for light car-park lots, and 7.5 lbs/cu yd for high-traffic paving lane applications. FERRO-GREEN® is added directly to the concrete mixing system during or after the batching of the other ingredients, and mixed at the time and speed recommended by the mixer manufacturer (usually four to five minutes). Mixing speed and time should be optimized for the specific mixing/batching system to insure complete opening and uniform distribution of the blended FERRO-GREEN® fiber bundles.

### PHYSICAL PROPERTIES

Materials.....	Virgin copolymer and recycled polypropylene blend
Form.....	Macro-monofilament/fibrillated-net blend
Specific Gravity.....	0.91
Available lengths.....	3/4" (19 mm), 1 1/2" (38 mm), 2 1/4" (54 mm)
Color.....	Gray/dark gray blend
Acid/Alkali Resistance.....	Excellent/inert
Absorption.....	Nil
Compliance.....	A.S.T.M. C-1116

### AVAILABILITY

FERRO-GREEN® can be purchased from FORTA Corporation or an authorized FORTA® products distributor, dealer, or representative. Orders are generally shipped within 24 hours by small package services, commercial carrier, or air freight.

### PACKAGING

Convenient incremental pound or kilogram mixer-ready packaging available. Contact FORTA® for exact carton and pallet net weights, dependent on fiber bag size and fiber length.

### 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.

## **SAMPLE SPECIFICATION**

FORTA Corporation's technical recommendations regarding synthetic fiber characteristics are based on years of engineering research and scores of concrete projects. FORTA® has developed a simple "4-C's" formula to help the specifier choose the right fiber for any concrete project application. By making a decision with each of the FORTA® "4-C's" categories – Configuration, Chemistry, Contents, and Correct Length–specifiers are assured of obtaining the desired fiber performance level for a given project. The following 4-C's formula sample specification has been prepared to accommodate the stated reinforcement objective for this FORTA® product grade.

**REINFORCEMENT OBJECTIVE:** To inhibit plastic and hardened shrinkage cracking, and increase pervious concrete toughness, freeze-thaw resistance, and durability.

## **DIVISION – CONCRETE SECTION – PERVIOUS CONCRETE REINFORCEMENT SUB-SECTION – SYNTHETIC FIBER REINFORCEMENT**

Synthetic fiber reinforcement shall be used in the areas denoted in the plans, and shall comply with the following fiber characteristics:

1. Configuration – Fiber shall be in a blend of macro-monofilament and fibrillated-net bundle form.
2. Chemistry – Fiber shall be a blend of virgin copolymer and recycled polypropylene.
3. Contents – Fiber shall be used at a rate of \_\_\_\_\_% by volume of concrete, resulting in a dosage of \_\_\_\_\_ pounds per cubic yard. [0.17%, 2.5 lbs/cu yd; 0.33%, 5.0 lbs/cu yd; 0.5%, 7.5 lbs/cu yd]
4. Correct length – Fiber length shall be \_\_\_\_\_. [3/4", 19 mm; 1 1/2", 38 mm; 2 1/4", 54 mm]

### **COMPLIANCE**

Fibers shall comply with A.S.T.M. C-1116 "Standard Specification for Fiber Reinforced Concrete and Shotcrete". The approved product is FERRO-GREEN® macro-pervious fiber as manufactured by FORTA Corporation, Grove City, PA, U.S.A. Phone: 1-800-245-0306 or 1-724-458-5221; Fax: 1-724-458-8331



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