

# Pre-Approved Product Evaluation Request & Summary

Product Evaluation Coordinator  
Colorado Department of Transportation 4670 North Holly Street  
Denver, Colorado 80216

APL Reference No.

3071-25

Material Code

709.04.02.00

Material Code description full name

Concrete, Reinforcing Fiber, Plastic

## Part 1

Product Name:

FORTA-FERRO®

Product category:

Concrete\Fiber\Macrofiber

Product Representative / Distributer (name & address):

Gerald J. Welch

FORTA LLC

100 Forta Dr

Grove City, PA 16127

Manufacturer (name & address):

Gerald J. Welch

FORTA LLC

100 Forta Dr

Grove City, PA 16127

Phone: (724) 458-5221 E-mail: gwelch@fortacorp.com

Website address

www.fortacorp.com

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**Description of the product:** (Include specific quantifiable details from the tech data sheet. Advertising generalities are not appropriate.)

FORTA-FERRO® is a patented, synthetic macrofiber (structural fiber) - coarse mono-filament twisted bundle & self-fibrillating polypropylene / polyethylene blend. It is designed as an alternate reinforcing material to WWM (wire mesh), steel fibers, and light reinforcing bar configurations (such as #3's, #4's @ 12-18" o.c.e.w.). FORTA-FERRO fibers provide concrete with three-dimensional reinforcing, enhancing the flexural toughness, impact and fatigue resistance with the added benefit of superior plastic shrinkage cracking control versus welded wire mesh and steel fibers. Dosage amounts vary by engineering requirements.

Material: Virgin Copolymer/Polypropylene, Color: Gray, Form: Mono-filament macrofiber twisted bundles & Fibrillated fiber System, Acid/Alkali Resistance: Excellent, Specific Gravity: 0.91, Absorption: Nil, Tensile Strength: 83-96 ksi (570-660 MPa), Compliance: ASTM C1116 & D7508.

**Restrictions, (installation and/or use):**

Use of fibers may cause an apparent loss in measured slump of concrete. This may be offset with the use of a water reducing admixture if necessary.

**Use of the product, and Benefit to CDOT (be specific to CDOT highway activities only):**

Replacement of steel reinforcement in concrete, to reduce cracking and improve fatigue resistance. White-Toppings, Overlays, Pavement, Shotcrete, Slabs, Pre-cast (Barriers & etc.).

**Specifications: (listing those applicable is required.)**

<input checked="" type="checkbox"/>	CDOT	Standard Specification, Subsection 7.04.05
<input type="checkbox"/>	AASHTO	
<input checked="" type="checkbox"/>	ASTM	ASTM C1116 & D7508 Compliance to Certification
<input type="checkbox"/>	Other	
<input checked="" type="checkbox"/>	Other	FORTA-FERRO Fact Data Sheet

Certificate of Compliance

Certificate of Verification

**Product Testing:** (National/independent laboratories or universities with Report Date.) A certified Test Report (CTR) is provided to validate all claims.

<input type="checkbox"/>	AASHTO Product Evaluation & Audit Solutions (NTPEP)	
<input type="checkbox"/>	ASTM	
<input checked="" type="checkbox"/>	Other	FORTA - FORTA-FERRO At 4.0 pcy - C1609 Testing.pdf
<input checked="" type="checkbox"/>	Other	UL-Certification CBXQ R18552 Fiber Reinforcement and Concrete Additives.pdf
<input checked="" type="checkbox"/>	Other	FORTA-FERRO - ICC-ES Evaluation Report (ESR-2522)

State DOT Approvals: AZ, GA, IA, LA, MN, NH, OR

Expiration Date 4 Years

03/06/2029

Sample Submitted  Yes  No  N/A Safety Data Sheets (SDS):  Yes  No  N/A

Alternate Product Category None

CDOT Restrictions as per CDOT Approving Authority

Evaluators Signature: