**FORTA-FERRO® Guide Specification for Synthetic Fiber-Reinforced Portland Cement Concrete Slabs on Ground**

Section 03240 Fiber Reinforcement

Part 1 General

1.1 Section Includes

A. Fiber reinforcement for cast-in-place portland cement concrete for slabs on ground.

1.2 Related Sections

A. Section 03300 Cast-in-Place Concrete.

1.3 References

1. American Society for Testing and Materials (ASTM) C1116 Standard Specification for FiberReinforced Concrete, latest edition.
2. American Concrete Institute (ACI) 360 Slabs on Ground, latest edition.

Part 2 Products

2.1 Manufacturer

A. The FORTA Corporation 100 FORTA Drive

Grove City, PA 16127 (800) 245-0306 www.forta-ferro.com

2.2 Fiber Reinforcement Description for FORTA-FERRO®

1. Fiber lengths are greater than 2.0 inches.
2. Before mixing, fibers are collated by twisting with an initial bundle aspect ratio less than 20.
3. Pre-mixing, macro monofilament fibers are bundled and have an aspect ratio of 80.
4. Post mixing, fibers are dispersed and have an aspect ratio of 80 or greater.
5. Fibers are made of copolymer virgin materials that are inert.
6. Fibers are sized to be flexible and not stiff to ensure fibers ‘lay down’ and are easy to finish.

2.3 Fiber Dosage

A. Add fiber reinforcement at these dosages:

* 1. Dosage 3.0 lbs/cy; temperature and shrinkage reinforcement only.
  2. Dosage 5.0 lbs/cy; for moderate benefits to reduce cracking.
  3. Dosage 7.5 lbs/cy; for best benefits and highest probability to reduce cracking from tension, curling, and fatigue.

2.4 Batching and Mixing

1. After all or a portion of the concrete has been loaded into the truck or mixer, add fiber reinforcement by mixer ready dispersible bags at the prescribed dosage with the drum turning,.
2. After fibers have been added, add water-reducing admixture (polycarboxylate superplasticizer).
3. Follow ACI procedures to mix 5 minutes once all ingredients are in the drum.

Part 3 Execution

3.1 Placement

1. Place concrete in accordance with provision of Section 03300 Cast-In-Place Concrete and with additional instructions as follows.
2. Use slump testing as consistency truck to truck not as a measure of workability.

3.2 Finishing

1. Verify timing for final finish by impression depth into surface and other judgments to ensure proper finishing timing.
2. Use steel/magnesium tools.

3.3 Schedules

A. Use fiber reinforced concrete in described locations scheduled as follows for each dosage.

END OF SECTION

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