

**SECTION 03 24 00
FIBROUS REINFORCING**

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Fibrous concrete reinforcement

1.2 REFERENCES

- A. ACI 544.1R - Report of Fiber Reinforced Concrete
- B. ACI 544.2R - Measurement of Properties of Fiber Reinforced Concrete
- C. ASTM C94/C94M – Standard Specification for Ready Mixed Concrete
- D. ASTM C1116/C1116M, Standard Specification for Fiber-Reinforced Concrete and Shotcrete
- E. ASTM E119, Standard Method of Fire Tests of Building Construction Materials
- F. ASCE 9, Standard Practice for the Construction and Inspection of Composite Slabs

1.3 PERFORMANCE REQUIREMENTS

- A. Fibrous concrete reinforcement shall produce concrete per the requirements for each type and class of concrete required, as indicated on the drawings and specified where the concrete conforms to ASTM C1116/C1116M, Type III, 4.1.3 and modified Kirby-Bauer method tested against Staphylococcus Aureus and Escherichia Coli, and provide residual strength.

1.4 SUBMITTALS

- A. Submit product data under provisions of Section 01 33 00 Submittal Procedures.
- B. Submit the manufacturer's printed product data to indicate proposed fibrous concrete reinforcement materials including application rate per cubic yard of concrete.
- C. Submit manufacturer's printed batching and mixing instructions.
- D. Concrete supplier shall certify the amount of fibrous concrete reinforcement material in each batch of concrete delivered to the project site.
 - 1. Certificate to include a copy of the batch delivery ticket; indicating the manufacturer's name, trade name, and amount per cubic yard of fibrous concrete reinforcement material in the batch.
 - 2. Minimum rate of 1.5-lb/cu yd
- E. Submit fiber manufacturer's facility's Certificate of Registration, providing ISO 9002 compliance.
- F. Submit certification of fiber's antimicrobial properties.

PART 2 PRODUCTS

2.1 FIBROUS CONCRETE REINFORCEMENT

- A. Materials:
 - 1. Material: 100 percent virgin homopolymer polypropylene multifilament fibers, containing no reprocessed olefin materials.
- B. Physical Characteristics:
 - 1. Specific gravity: 0.91
 - 2. Fiber length: Multi-Design Gradation
 - 3. Alkali Resistance: Alkali Proof
 - 4. Melting Point 324 degrees F

The School District of Palm Beach County

Project Name

SDPBC Project No.

PART 3 EXECUTION

3.1 APPLICATION

- A. Add fibrous reinforcement during batching of concrete in amounts per approved submittals for each type of concrete required.
- B. Mix concrete in strict accord with fiber reinforcement manufacturer's instructions and recommendations for uniform and complete distribution.

3.2 MANUFACTURER'S FIELD SERVICE

- A. Provide the services of a qualified technical representative to instruct the concrete supplier in proper batching and mixing of materials.

3.3 CONCRETE PLACING AND FINISHING

- A. Place and finish concrete materials as specified in Section 03 30 00.
- B. Use fibrous concrete reinforcing only for exterior concrete work - sidewalk, pads, etc.

END OF SECTION