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# SECTION 03240 FIBRE REINFORCING

# **Product Guide Specification**

Specifier Notes: This product guide specification is written according to the Construction Specifications Institute (CSI) Format, including MasterFormat, SectionFormat, and PageFormat, contained in the CSI Manual or Practice. The section must be carefully reviewed and edited by the Engineer to meet the requirements of the project and local building code. Coordinate this section with the concrete section.

This section covers **Mix UK** Technologies **Mix UK FIBERON POLYPROPYLENE FIBRES** for use as secondary reinforcement in concrete. Consult **Mix UK** Technologies for assistance in editing this section for the specific application. Delete all "Specifier Notes" when editing this section.

#### **PART 1 GENERAL**

### 1.1 SECTION INCLUDES

A. Fibres for use as secondary reinforcement in concrete.

## 1.2 RELATED SECTIONS

Specifier Notes: Edit the following list of related sections as required for the project. List other sections with work directly related to the fibres.

- A. Section 03300 Cast-in-Place Concrete.
- B. Section 03370 Specially Placed Concrete: Shortcrete
- C. Section 03400 Precast Concrete

#### 1.3 REFERENCES

Specifier Notes: List standards referenced in this section, complete with designations and titles. This article does not require compliance with standards, but is merely a listing of those used.

- A. ASTM C 94 Ready-mixed concrete
- B. ASTM C 1116 Fibre Reinforced Concrete and Shortcrete

# 1.4 SUBMITTALS

- A. Comply with Section 01330 Submittal Procedures
- B. Product Data: Submit manufacturer's product data
- C. Test reports: Submit recent material test reports from testing performed by an independent laboratory indicating compliance of fibres with specified requirements.
- D. Manufacturer's Quality Assurance: Submit certification that fibres comply with ASTM C 1116, Type III and other specified requirements and are suitable for intended application.

# 1.5 DELIVERY, STORAGE, AND HANDLING

- A. Delivery: Deliver fibres in manufacturer's original unopened containers and packaging, with labels clearly identifying:
  - 1. Material Name
  - Manufacturer
  - 3. Weight of material



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#### B. Storage

- 1. Store fibres in a clean dry area in accordance with manufacturer's instructions.
- 2. Keep containers sealed until ready for use.
- C. Handling: Protect fibres during handling, batching, and mixing to prevent contamination.

## PART 2 PRODUCTS

#### 2.1 MANUFACTURER

A. Mix UK Ltd., St. Mary's Studiios, St. Mary's Road, Bowdon Cheshire, WA14 2PL, England | Tel: 0161 333 2512

#### 2.2 FIBRES

A. Fibres as secondary reinforcement in concrete:

Mix UK Fibrillated Propylene Fibres]

Mix UK Enhanced Multifilament Polypropylene Fibres]

Mix UK Monofil Polypropylene Fibres]

- 1. Material: 100 percent virgin material manufactured for use as secondary reinforcement in concrete. Alkaliresistant, non-corrosive, and non-absorptive.
- 2. Compliance: ASTM C 1116, Type III.
- 3. Physical Test Results: At recommended dosage rates, results from appropriate ASTM tests shall not be less than control.
- 4. Plastic Shrinkage Reduction: Greater than 40 percent of control.

Specifier Notes: Consult **Mix UK** Technologies for assistance in determining the required fibre length.

5. Fibre Length: In accordance with manufacturer's instructions.

Specifier Notes: Indicate the concrete to contain fibres. Edit the following as required for the project.

B. Use fibres [in all concrete] as alternative to welded wire fabric in plain concrete slabs-on-grade when used for Secondary Reinforcement] [\_\_\_\_\_\_\_].

# 2.3 MIX DESIGN

Specifier Notes: Specify Section 03300 for cast-in-place concrete, Section 03370 for shortcrete or Section 03400 for precast concrete.

- A. Concrete Mix Design: As specified in Section [03300] [03370] [03400].
- B. Concrete Materials: Evaluate concrete mix design with fibres mixed with concrete materials representative of those proposed for use.
- $C. \quad \text{Compatibility of Materials} \, : \, \text{Verify compatibility of fibres with other materials in concrete mix}.$

## PART 3 EXECUTION

## 3.1 BATCHING AND MIXING

A. Add fibres to concrete at dosage rate in accordance with manufacturer's instructions and as determined by concrete mix design.



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B. Batch and mix fibres in accordance with manufacturer's instructions and ASTM C 94.

Specifier Notes: Specify the method of adding the fibres to the concrete mix.

- C. Add fibres to concrete [during batching procedure at concrete batch plant] [directly into truck mixer after batching procedure].
- D. Mix concrete with fibres at mixing speed for a minimum of 5 minutes or 70 revolutions.

Specifier Notes: Specify the method of adding the fibres to the concrete mix.

- E. Measuring, Batching, Mixing and Delivering concrete: As specified in Section [03300] [03370] [03400]
- 3.2 PLACING, FINISHING, AND CURING
- A. Placing, Finishing, and Curing Concrete: As specified in Section [03300] [03370] [03400].
- 3.3 FIELD QUALITY CONTROL
- A. Inspection and Testing of concrete: As specified in Section [03300] [03370] [03400].
- B. Manufacturer's Field Services: Manufacturer's representative shall provide technical assistance as required.

# **END OF SECTION**

Mix UK Fiberon Polypropylene Fibre is marketed in the Gulf Region by:



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