

The following specification guide has been prepared to assist design professionals in the preparation of a specification section incorporating Solomon Colors, Inc. Ultrafiber reinforcement for concrete.

Utilize these paragraphs to insert text into Specification Section 03 30 00 – Cast-in-Place Concrete or similarly titled section governing this work.

Blue text includes instructions to the design professional. Black text is intended for insertion into project specifications.

PART 1 - GENERAL

REFERENCES

- ASTM International (ASTM):
 - A820/A820M - Standard Specification for Steel Fibers for Fiber-Reinforced Concrete.
 - C1116 – Standard Specification for Fiber-Reinforced Concrete.
 - D6942 - Standard Test Method for Stability of Cellulose Fibers in Alkaline Environments.
 - D7357 - Standard Specification for Cellulose Fibers for Fiber-Reinforced Concrete.

SUBMITTALS

- A. Product Data: Manufacturer’s descriptive data.

PART 2 - PRODUCTS

MATERIALS

Utilize the following for a mixture of cellulose and steel fibers blend that reduces early age plastic shrinkage and provides long term crack control.

- Fibrous Reinforcing:
 - Source: Solomon UltraFiber 302 Blend by Solomon Colors, Inc. www.solomoncolors.com
 - Material: Alkali-resistant natural cellulose fibers with CFS cold drawn steel fibers.
 - Meet ASTM A820/A820M, ASTM D7357, and ASTM C1116, Section 4.1.4, Type IV.
 - Average length: 0.083 inch (2.1 mm).
 - Average tensile strength: 110 ksi (750 N/mm²).

**** OR ****

Utilize the following for 100-percent cellulose fiber as secondary reinforcement, reduced plastic shrinkage, improved concrete wear resistance. Ideal for concrete to be colored, dyed, polished or sealed to a decorative floor finish. Unlike carpet fibers, cellulose fibers are not noticeable in the finished surface.

- Fibrous Reinforcing:
 - Source: Solomon UltraFiber 500 by Solomon Colors, Inc. www.solomoncolors.com
 - Material: Alkali-resistant natural cellulose fibers.
 - Meet ASTM A820/A820M, ASTM D7357, and ASTM C1116, Section 4.1.4, Type IV.
 - Stability: Exceed ICC-ES requirements of 90 percent average Zero-Span Stability Ratio (ZSSR) after exposure to saturated calcium hydroxide and 1.0N sodium hydroxide, tested to ASTM D6942.
 - Average length: 0.083 inch (2.1 mm).

- Average tensile strength: 110 ksi (750 N/mm²).

MIXES

- A. Add fibrous reinforcing to concrete during mixing; follow manufacturer's instructions.