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**DIVISION: 03—CONCRETE**

Section: 03240—Fibrous Reinforcing

**REPORT HOLDER:**

**PROPEX CONCRETE SYSTEMS CORP.**  
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**EVALUATION SUBJECT:**

**FIBERMESH® 300 FIBERS AND FIBERMESH® 300 e3® FIBERS**

**1.0 EVALUATION SCOPE****Compliance with the following codes:**

- 2006 *International Building Code*® (IBC)
- 2006 *International Residential Code*®
- BOCA® *National Building Code*/1999
- 1999 *Standard Building Code*®
- 1997 *Uniform Building Code*™ (UBC)
- 1998 *International One- and Two-Family Dwelling Code*®

**Properties evaluated:**

- Fiber durability
- Crack control in concrete

**2.0 USES**

Fibermesh® 300 Fibers and 300 e3® Fibers are recognized for use as admixtures to reduce plastic shrinkage cracking in reinforced concrete and to reduce shrinkage and temperature cracking in structural plain concrete slabs on grade.

**3.0 DESCRIPTION**

Fibermesh® 300 Fibers are collated fibrillated polypropylene olefin fibers  $\frac{3}{4}$  inch (19.1 mm) in length. Fibermesh® 300 e3® Fibers are multi-length-design collated fibrillated polypropylene olefin fibers with fiber lengths of  $\frac{1}{2}$  inch (12.7 mm) and  $\frac{3}{4}$  inch (19.1 mm). Both fiber types are furnished in small bundles and are designed to disperse during mixing, when added to a concrete mix. Both fiber types are intended to be used in normal-weight or lightweight concrete.

Structural plain concrete provisions are found in Chapter 22 of ACI 318. Use of the fibers shall not reduce the requirements for contraction or isolation joints. Contraction or isolation joints shall be provided in accordance with Section 22.3 of ACI 318 or Section 1922.3 of the UBC.

**4.0 INSTALLATION**

Fibermesh® 300 Fibers and 300 e3® Fibers shall be dispersed uniformly through the concrete mixture in accordance with ASTM C 1116.

The fibers shall be blended into the concrete mix at a rate of 1.5 pounds per cubic yard (0.1 percent by volume) of concrete (0.89 kg/m<sup>3</sup>). The dosage shall not exceed 15 pounds per cubic yard (1.0 percent by volume) of concrete (8.9 kg/m<sup>3</sup>).

The manufacturer's published installation instructions and this report shall be strictly adhered to, and a copy of the manufacturer's instructions shall be available at all times on the jobsite during installation. The instructions within this report govern if there are any conflicts between the manufacturer's published installation instructions and this report.

**5.0 CONDITIONS OF USE**

The Fibermesh® 300 Fibers and 300 e3® Fibers described in this report comply with, or are suitable alternatives to what is specified in, those codes listed in Section 1.0 of this report, subject to the following conditions:

- 5.1** The fibers shall not be used as a replacement for any reinforcement required for structural purposes.
- 5.2** Structural design of the concrete shall comply with the applicable building code.
- 5.3** Fibers shall be blended into the concrete mix in accordance with Section 4.0 of this report.
- 5.4** Contraction or isolation joints shall be provided in accordance with Section 22.3 of ACI 318, Section 1922.3 of the UBC or Section 1909.3 of the IBC.
- 5.5** For reinforced concrete, structural reinforcement and shrinkage and temperature reinforcement shall be provided as required in Section 7.12 of ACI 318-02 (IBC) or Section 1907.12 of the UBC.
- 5.6** Use of fibers shall be approved by the registered design professional, if there is one.
- 5.7** A ticket, signed by a weigh master, shall be available to the code official upon request. The delivery ticket shall include, in addition to the items noted in Section 13.1 of ASTM C 94-00 (IBC) or Section 16.1 of ASTM C 94-94 (SBC, UBC) or Section 16.1 of ASTM C 94-96 (BNBC), the type and amount of fibers added to the concrete mix.

**6.0 EVIDENCE SUBMITTED**

- 6.1** Data in accordance with ICC-ES Acceptance Criteria for Concrete with Synthetic Fibers (AC32), dated October 2003.

6.2 A quality control manual.

## 7.0 IDENTIFICATION

Each container of Fibermesh<sup>®</sup> 300 Fibers and 300 e3<sup>®</sup> Fibers is identified with the name and/or trademark, and the address

and telephone number, of Propex Concrete Systems; the product trade name; the dosage rate; use instructions; and the ICC-ES evaluation report number (ESR-1165).