

**Test Data:**

**Concrete Depot Fibers  
as Reinforcement in Hardened Concrete**



**Overview**

A testing program was undertaken to determine the compliance of **Concrete Depot Fibers** with ICBO Engineering Services, Inc. (ES), acceptance criteria (AC) for concrete reinforced with synthetic fibers. The acceptance criteria established to evaluate the performance of synthetic fibers as temperature-shrinkage reinforcement in concrete, i.e., AC 32, Section 4.1.2. The testing program was conducted at Stork Twin City Testing Corporation in St. Paul, Minnesota. The test results demonstrated the effectiveness of **Concrete Depot** fibers as secondary temperature-shrinkage reinforcement in hardened concrete.

**Material Description**

0.75" (19mm) Multifilament Virgin Nylon Fiber

**Standard Dosage Rate**

1.0 pound/cubic yard (0.60 kg/cubic meter) of concrete

| <b><u>ICBO<br/>Test Procedure</u></b> | <b><u>Plain Concrete</u></b> | <b><u>Fiber-Reinforced<br/>Concrete</u></b> | <b><u>Control %</u></b> | <b><u>ICBO Specs</u></b> |
|---------------------------------------|------------------------------|---|-------------------------|--------------------------|
| Compressive Strength                  | 33.85 MPa<br>(4,910 psi)     | 36.40 MPa<br>(5,280 psi)                    | 107.5%                  | ≥ Plain Concrete         |
| Flexural Strength                     | 5.17 MPa<br>(750 psi)        | 5.65 MPa<br>(820 psi)                       | 109.3%                  | ≥ Plain Concrete         |
| Freeze/Thaw Durability                | 92.1%                        | 94.6%                                       | 102.7%                  | ≥ Plain Concrete         |
| Bond Strength                         | 87,240 N<br>(19,610 lbs)     | 87,310 N<br>(19,630 lbs)                    | 100.1%                  | ≥ Plain Concrete         |
| Plastic Shrinkage Cracking            |                              | 76.0%                                       |                         | ≥ Plain Concrete         |