

NOVOMESH® 950

INSTALLATION GUIDELINES



Mix Designs:

Novomesh® 950 reinforcing is a mechanical, not a chemical process. The addition of Novomesh 950 does not require additional water or other mix design changes at 5 lbs per cubic yard. The addition of Novomesh 950 may have an effect on slump. The use of other admixtures may be necessary to maintain both slump and workability. Add other admixtures independently from fiber addition. For dosage rates above two bags, additional testing is recommended.

Mixing Procedures:

Novomesh 950 degradable bags are added to the mixer either after batching the other concrete materials or during the addition of aggregates and water. In order to insure complete dispersion of the fibers, the initial slump should be in the range of 5 inches (+/- 1") [127 mm +/- 25 mm] before the addition of admixtures. Mixing time of at least 5 minutes (70-100 revolutions) at mixing speed is required as specified in ASTM C-94. The complete dispersion of fibers requires maximum shear and mixing speed. Therefore the total capacity of the mixer should not be exceeded when using Novomesh 950. If special conditions are present, full scale batch trials should be conducted prior to actual placement.

Novomesh 950 can be used in self-consolidating concrete (SCC). It is imperative, however, that the product is introduced and fully dispersed before the final addition of admixtures.

Finishability:

Novomesh 950 reinforced concrete can be finished with normal finishing techniques in accordance with ACI 304, section 6.3. Premature finishing can expose fibers at the surface. Refer to SI Concrete Systems' document "Finishing Guidelines." Vibration during screeding is recommended as noted in ACI 544.1R.

Novomesh 950 is compatible with patterned and textured finished concrete. Hard bristled brooms applied after initial set of concrete will minimize surface fibers. Tining can be used to texture the surface as it presses fibers down and is less disruptive to the finishing process.

Pumping:

Due to the cohesive enhancement of fibers to the concrete, fiber concrete pumps better than plain concrete. This is especially true with Novomesh 950. Some pump operators report a drop in pump pressure when using Novomesh 950. This is normal and requires no additional water.

Design Guidelines:

Novomesh® 950 is intended for use as temperature/shrinkage and flexural reinforcement. For slab on ground design, use industry guidelines published by PCA and ACI for recommended slab thickness and joint spacing.

Packaging:

Novomesh 950 fibers are available in 5 lb. degradable bags. The macro-monofilament fiber is collated in small bundles within the degradable bag for rapid distribution. Novomesh 950 fibers are packaged, shrink-wrapped and palletized for protection during shipping.

Mini-Specification:

Novomesh 950 will be used for shrinkage and temperature protection of the concrete. Novomesh 950 is a blend of high performance macro-monofilament fiber with patented sinusoidal deformations and collated-fibrillated polypropylene fibers. All fibrous concrete shall conform to ASTM C 1116 and produce an Average Residual Strength (ARS) of no less than 215 psi from a test set of 5 beams in accordance with ASTM C 1399 Test Method for determining Average Residual Strength of Fiber Reinforced Concrete. Application rate shall be a minimum of one degradable 5-pound bag per cubic yard (3.0 kg/m³) of concrete. Fiber manufacturer must document evidence of satisfactory performance history, compliance with applicable building codes, ASTM C-1116 Type III, 4.1.3. Fibrous concrete reinforcement shall be manufactured by SI Concrete Systems, 4019 Industry Drive, Chattanooga, Tennessee, USA, 37416. Phone: (423) 892-8080, Fax: (423) 892-0157, e-mail: fibermesh@sind.com.



For those who prefer performance to tradition.

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