

GRACE MICROFIBER™ FDS

Fluid delivery system

Description

Grace MicroFiber™ FDS is a fluid delivery system that contains Grace MicroFiber—a synthetic polypropylene fiber for concrete plastic shrinkage control. It allows automated dispensing of fibers into concrete. An accurate and recordable dosage of fibers can be delivered in an efficient and safe manner. The product is engineered specifically for rapid and uniform dispersion of fibers in concrete during batching.

Uses

Grace MicroFiber FDS is used in the concrete batching plant for automated addition of fibers into concrete. The fluid delivery system is used in any application where Grace MicroFiber are used to reduce cracking due to plastic shrinkage and improve durability. Specifically, applications include but are not limited to, slab on grade, elevated slabs, pavements, overlays, sloped walls, pools, shotcrete, stucco, precast and prestressed concrete products.

Product Advantages

- Automated dispensing of fiber reinforcement into concrete
- Safety
- Assured fiber dosage
- Batch ticket confirmation
- Process efficiency improvement
- Improved productivity
- Same quality as Grace MicroFiber

Advantages

Grace MicroFiber FDS offers an easy, efficient and safe process for batching a measured dose of Grace MicroFiber. It allows uniform multi-dimensional dispersion throughout the concrete matrix. The dosage into concrete is assured and can be documented on the batch ticket just like other admixtures. Since the product batching in concrete is automated through a Grace dispenser system, it presents an opportunity for improving productivity and safety at a ready mix plant.

Additionally, in several tests conducted with Grace MicroFiber FDS, contractors have experienced flexibility in handling concrete during the pour, and an easier and smoother finish.

Mixing Requirements and Addition Rates

Grace MicroFiber FDS may be added to the mixer any time during the batching process.

The standard range of addition of Grace MicroFiber FDS is 0.3 to 0.9 gal/yd³ (equivalent of 0.5 to 1.5 lbs of Grace MicroFiber per cubic yard) as shown in the accompanying “Addition Rates” table. One gallon of Grace MicroFiber FDS contains 0.8 gallons of water.

Compatibility with Other Admixtures

Grace MicroFiber FDS is compatible with all Grace admixtures. Each admixture should be added separately to the concrete mix.

Packaging and Dispensing

Grace MicroFiber FDS is available in totes and is added directly to the mixer during batching using a Grace MicroFiber FDS Dispensing System.

Storage

Grace MicroFiber FDS will freeze and must be kept at temperatures above 40°F (4°C). If freezing does occur, allow product to completely thaw prior to using. Do not use mechanical agitation.

Addition Rates

Grace MicroFiber FDS addition rates typically vary as given below.

Grace MicroFiber lbs/yd ³	Grace MicroFiber FDS gal/yd ³
0.50	0.30
0.75	0.45
1.00	0.60
1.50	0.90

Architects' Specifications

Grace MicroFiber FDS does not impact the specifications approved for Grace MicroFiber. Fibers shall be 3/4 in. (19 mm) polypropylene fibers as supplied by Grace Construction Products. The design engineer or architect shall specify required dosage rate. Grace MicroFiber FDS shall be used in strict accordance with the supplier's recommendations and within time as specified in ASTM C94. The fiber shall comply with ASTM Designation C1116 Type III 4.1.3 and with applicable building codes. Standard ACI 302 procedures for placing, finishing and curing shall be followed when using Grace MicroFiber FDS.

www.graceconstruction.com

North American Customer Service: 1-877-4AD-MIX1 (1-877-423-6491)

Grace MicroFiber is a trademark of W. R. Grace & Co.–Conn.

We hope the information here will be helpful. It is based on data and knowledge considered to be true and accurate and is offered for the users' consideration, investigation and verification, but we do not warrant the results to be obtained. Please read all statements, recommendations or suggestions in conjunction with our conditions of sale, which apply to all goods supplied by us. No statement, recommendation or suggestion is intended for any use which would infringe any patent or copyright. W. R. Grace & Co.–Conn., 62 Whittemore Avenue, Cambridge, MA 02140. In Canada, Grace Canada, Inc., 294 Clements Road, West, Ajax, Ontario, Canada L1S 3C6.

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