TECHNICAL DATA SHEET

Chryso
Concrete
Solutions

10/02/2026

Adfil®Sinta F19

Synthetic Micro Fiber
Fibrillated Fibers

DESCRIPTION

Adfil®Sinta F19 synthetic fibers for concrete, are manufactured from 100% virgin polypropylene in collated, fibrillated form. Designed specifically for use in concrete, they are alkali resistant, non-absorptive and completely noncorrosive. Their use protects concrete from stresses which cause cracking while it is most vulnerable during the first 24 hours after placement. Adfil®Sinta F19 complies with ASTM C1116, Standard Specification for Fiber-Reinforced Concrete and Shotcrete, Type III Synthetic Fiber-Reinforced Concrete or Shotcrete. They are available in 0.75 in. (19 mm) length.

Adfil®Sinta F19 uniformly distributes multi-dimensionally throughout the concrete mixture. The small fibrillated fibers mechanically lock in the fresh concrete matrix, providing reinforcement for the mixture while its tensile strength is the weakest. This reinforcement reduces the formation of plastic shrinkage cracking that may otherwise permanently weaken the resulting concrete. Concrete permeability is decreased, while the surface characteristics, impact, and toughness properties are improved. Together these effects work synergistically to produce a long-term better quality, more durable, and serviceable concrete.

ADVANTAGES

- Protects concrete when tensile strength is at its lowest, reducing the formation of plastic shrinkage cracking.
- Enhances impact and toughness properties.
- Easy to mix and fast to disperse.
- Minimizes fiber-reinforced concrete finishing concerns.
- Reduces plastic shrinkage cracking and improves durability.
- Protects concrete from stresses that cause cracking.
- Provides cost effective control of plastic shrinkage.
- Provides overall higher quality of concrete.

FIELDS OF APPLICATION

Adfil®Sinta F19 may be used in applications where decreased plastic shrinkage cracking and improved durability are desired. Specifically, such application include but are not limited to: slabs on grade, pavements, overlays, sloped walls, pools, shotcrete, stucco, precast and prestressed products. It is suggested that this product be used in conjunction with properly compacted base materials and jointing in accordance with ACI guidelines and standards.

Method of Use

Dosage

- Adfil®Sinta F19 may be added to concrete at any point during the batching or mixing process. Adfil ®Sinta F19 may be added to the aggregate during weighing or charging, or to the central mixer or truck before, during, or after charging.
- The concrete must be mixed at high speed for 5 minutes, or 70 revolutions, after the addition of Adfil ®Sinta F19 to ensure uniform distribution.
- The standard range of addition for Adfil ®Sinta F19 is 0.75 to 3.0 lb/yd^3 (450 to 1800 g/m^3) of concrete. Typically, 1.5 lbs/yd^3 (900 g/m^3) of SINTA® F19 provides excellent results.
- Higher addition rates may be used to produce concrete when special properties are required.

Additional Usage Recommendations

- Adfil®Sinta F19, at the approrpiate dosage rate, may be used as an alternative to light-gage welded-wire reinforcement (6x6 W1.4xW1.4), depending of the application.
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accordance with ACI guidelines and standards.

Complimentary Products

- SINTA® F19 is compatible with all admixtures. Its action in concrete is purely mechanical and will not affect the hydration process. Each admixture should be added separately.

Process Component

- Fibers shall be 0.75 in. (19 mm) collated, fibrillated polypropylene fibers as supplied by Chryso Inc.
- Required dosage rate shall be as specified by the design engineer or architect. SINTA® F19 shall be used in strict accordance with the supplier's recommendations and within time as specified in ASTM C94. The fibers shall comply with ASTM Designation C1116 Type III and with applicable building codes.
- Certification of compliance shall be made available on request.
- Standard ACI 302 procedures for placing, finishing and curing shall be followed when using SINTA® F19.

CHARACTERISTICS

Product Nature	Polypropylene fibers
Apparent density	0,910
Fiber length	0.75 in
Ignition Point	1094 °F
Tensile strength	44 ksi
Elasticity module	725 ksi
Melting Point	320 °F
Chemical resistance	High

Nominal Fiber Count: 25 million per lb; Absorption: none.

PACKAGING

- 1.5lb bag

ADDITIONAL CERTIFICATIONS & MARKINGS

- ASTM C1116 / C1116M, Standard Specification for Fiber-Reinforced Concrete, Type III Synthetic Fiber-Reinforced Concrete
- Meets ICC ES AC32 criteria Plastic Shrinkage Crack Reduction
- BOCA National Building Codes, SBCCI Standard Building Code, ICBO Uniform Building Code and all supplements as adopted by the Council of American Building Officials.
- ACI 544.1 R State of the Art Report of Fiber-Reinforced Concrete
- ACI 302 Guide for Concrete Floor & Slab Construction
- ASTM C1116 Standard Specification for Fiber-Reinforced Concrete and Shotcrete
- ASTM C1579 Standard Test Method for Evaluating Plastic Shrinkage Cracking of Restrained Fiber Reinforced Concrete
- ASTM C94 Standard Specification for Ready-Mixed Concrete

PRECAUTIONS

- Adfil®Sinta F19 are available in convenient Concrete-Ready™ Bags which are added, unopened, to the truck drum or central mixer. The specially designed cellulose fiber bag disintegrates and disperses its contents of Adfil®Sinta F19, throughout the mix.
- Read and understand the product label and Safety Data Sheet (SDS).
- All users should acquaint themselves with this information prior to working with the products and follow the precautionary statements.

SAFETY

Prior to any use, please read carefully the Safety Data Sheet.

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- UL on Series D700/D800 metal deck assemblies

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