TECHNICAL DATA SHEET

Chryso Concrete Solutions

06/13/2026

Adfil®Strux BT50

Synthetic Macro Fiber

DESCRIPTION

STRUX® BT50 fiber is a synthetic macro fiber complying with ASTM C1116/C1116M Type III. This macro fiber reinforcement is a high strength, high modulus synthetic macro reinforcement that imparts toughness, impact and fatigue properties to concrete. STRUX® BT50 is a patented engineered design providing superior post-crack control performance with a broad range of applications.
STRUX® BT50 Synthetic Macro Fiber reinforced concrete reliably achieves residual strength values in excess of 145 psi for every 4.5 lbs/yd^3 (1 MPa for every 2.7 kg/m^3).

STRUX® BT50 fibers are 2 in. (50 mm) in length with an aspect ratio of 75 and are primarily designed to replace steel fibers, welded wire fabric, light rebar and other select secondary reinforcement. STRUX® BT50 is a user friendly fiber reinforcement which is easier and safer to use, compared to other types of reinforcement.

ADVANTAGES

- Unique packaging provides superior dispersion
- Savings from reduced labor, material and storage costs and shorter construction time compared to secondary reinforcement
- Enhances safety by eliminating handling of steel fibers, welded wire fabric, or rebar
- Eliminates proper reinforcement positioning concerns
- Provides superior crack control due to the geometry and elastic modulus
- Non corrosive
- Controls both plastic and drying shrinkage
- Increased crack resistance, ductility and energy absorption and toughness
- Improved impact resistance

FIELDS OF APPLICATION

- STRUX® BT50 Synthetic Macro Fibers are engineered for ease of use, excellent dispersion and finishability in slab-on-ground flooring applications.
- STRUX® BT50 can be used in commercial, industrial and manufacturing floors, along with other select flat and form work applications.
- STRUX® BT50 is also ideal for use in precast tunnel segments and other select precast applications, pavements and soil stabilization projects, shotcrete and blast resistance.

Method of Use

Additional Usage Recommendations

- STRUX® BT50 Synthetic Macro Fibers addition rates are dependent on the specific application and desired properties and will typically vary between 7 to 15 lbs/yd^3 (4 to 9 kg/m^3).
- Please consult your sales representative for the proper addition rate of STRUX® BT50 macro fibers for your application.
- Always consult local building codes.

Complimentary Products

- Slight mix design modifications including increases in fine aggregate contents and high range water reducer dosage rates may be required when incorporating STRUX® BT50 Synthetic macro fibers into a mix design.
- Each additional 3 - 4 lbs/yd^3 (1.8 - 2.4 kg/m^3) of STRUX® BT50 may reduce the slump of the concrete approximately 1 in. (25 mm).
- Up front addition of STRUX® BT50 into empty drums prior to batching provides optimal STRUX® BT50 dispersion in the concrete mixture. However, STRUX® BT50 may be added to the concrete at any point during the batching or mixing process.

The information contained in this technical data sheet is given to the best of our knowledge and the result from extensive testing - which were conducted in order to remain as objective as possible. However, it cannot, in any case, be considered as a warranty involving our liability in case of misuse or any different use of our products, other than those from the "Applcation" paragraph of this technical data sheet. Some application tests should be carried out before using the product to ensure that the methods of use and conditions of application of the product are satisfactory. Our technical assistance is at the disposal of the users.

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- STRUX® BT50 should be mixed a minimum of 70 revolutions as specified in ASTM C94.

CHARACTERISTICS

Product Nature	Mix of polypropylene and polyethylene
Apparent density	0,910
Fiber length	2 in
Ignition Point	1050 °F
Nominal diameter	0.03 in
Tensile strength	80 ksi
Elasticity module	1000 ksi
Melting Point	320 °F
Chemical resistance	High

Nominal Fiber Count: 27,240 per lb; Nominal Aspect Ratio: 75; Absorption: none; Electrical & Thermal conductivity: low

PACKAGING

- 4,5kg Bag (10 lb)

Product	Bags/Box	Boxes/Pallet	Wt/Pallet (lb)
Adfil®Strux BT50 10LB BAG	4	18	720

ADDITIONAL CERTIFICATIONS & MARKINGS

- ASTM C1116 / C1116M, Standard Specification for Fiber-Reinforced Concrete, Type III Synthetic Fiber-Reinforced Concrete
- ASTM D7508 / D7508M, Standard Specification for Polyolefin Chopped Strands for Use in Concrete
- CSA B66-16, Design, material and manufacturing requirements for prefabricated septic tanks and sewage holding tanks
- U.S. Patent No. 7,462,392
- U.S. Patent No. 7,749,352

PRECAUTIONS

- All users should acquaint themselves with this information prior to working with the products and follow the precautionary statements.

More Information

Product	Bags/Box	Boxes/Pallet	Wt/Pallet (lb)
Adfil®Strux BT50 10LB BAG	4	18	720

SAFETY

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

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