

# Adfil® Durus TWIST50

Synthetic Macro Fiber

## DESCRIPTION

Adfil® Durus TWIST50 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. Adfil® Durus TWIST50 is an engineered twisted fiber providing superior post-crack control performance with a broad range of applications.

Adfil® Durus TWIST50 fibers are a finisher-friendly fiber reinforcement, which are easier and safer to use, compared to other types of reinforcement. These fibers may be used in a variety of ready mix, precast and shotcrete applications including slab-on-ground flooring, overlays, pavements, bridge decks, mass concrete, thin-walled precast elements (septic tanks, vaults, walls, etc.), tunnel linings, pool construction and slope stabilization.

## ADVANTAGES

- Can be used to completely or partially replace light rebar, welded wire reinforcement, and steel fibers.
- Saves money through reduction or elimination of steel labor and material movement and storage costs, and fewer construction days.
- Enhances jobsite safety by eliminating handling of steel fibers, welded wire reinforcement, and rebar.
- Enhances jobsite safety by eliminating tripping hazards commonly associated with welded wire reinforcement and rebar.
- Eliminates concerns of proper positioning of reinforcement.
- Provides superior crack control due to the geometry, elastic modulus, and corrosion resistant properties (non-ferric). Due to unique fiber design and uniform three dimensional dispersion, both plastic and drying shrinkage cracking is reduced, improving the ductility and durability of the concrete.
- Ease of pumping, passes easily through pump grates.
- May be used to provide effective crack width control.
- Reduces shotcrete rebound and improves cohesion.

## Method of Use

### Dosage

- Adfil® Durus TWIST50 Synthetic Macro Fibers addition rates are dependent on the specific application and desired properties and will typically vary between 3 to 8 lbs/yd<sup>3</sup> (1.8 to 4.8 kg/m<sup>3</sup>).
- Please consult your sales representative for the proper addition rate of Adfil® Durus TWIST50 macro fibers for your application.
- Always consult local building codes.

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 "Application" 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. [www.chryso.com](http://www.chryso.com)

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### Additional Usage Recommendations

Adfil® Durus TWIST50 Synthetic Macro Fibers are engineered for ease of use, excellent dispersion and finishability in slab-on-ground flooring applications.

Adfil® Durus TWIST50 can be used in commercial, industrial and manufacturing floors, along with other select flat and form work applications.

Adfil® Durus TWIST50 is also ideal for use in precast applications and pavements.

### Complimentary Products

Slight mix design modifications including increases in fine aggregate contents and high range water reducer dosage rates may be required when incorporating Adfil® Durus TWIST50 Synthetic macro fibers into a mix design.

Each additional 3 - 4 lbs/yd<sup>3</sup> (1.8 - 2.4 kg/m<sup>3</sup>) of Adfil® Durus TWIST50 may reduce the slump of the concrete approximately 1 in. (25 mm).

Up front addition of Adfil® Durus TWIST50 into empty drums prior to batching provides optimal dispersion in the concrete mixture.

Adfil® Durus TWIST50 should be mixed a minimum of 70 revolutions as specified in ASTM C94.

### CHARACTERISTICS

<b>Product Nature</b>	Polypropylene fibers
<b>Color</b>	White
<b>Apparent density</b>	0,910
<b>Flash Point</b>	660 °F
<b>Fiber length</b>	2 in
<b>Nominal diameter</b>	700 µm
<b>Tensile strength</b>	80 ksi
<b>Melting Point</b>	320 °F

### SAFETY

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

### PACKAGING

- 3lb bag
- 5lb bag