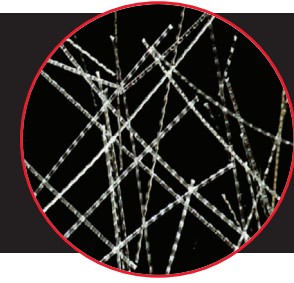


Durastran® 4X

Synthetic Macro-Fiber Reinforcement



The Product

Durastran 4X is a macro synthetic fiber manufactured with a special blend of homopolymer polypropylene and polyethylene to develop those properties required to maximize 3-dimensional benefits in hardened cement concrete. Durastrand 4X is a tape fiber with a rectangular cross-section, which is embossed to maximize the mechanical bond with the concrete. Durastrand 4X complies ASTM C1116 Section 4.1.3 Type III, as well as with the definitions and product QC requirements found in ASTM D7508.

The Benefits

Durastran 4X provide 3-dimensional benefits to the concrete, which include but are not limited to:

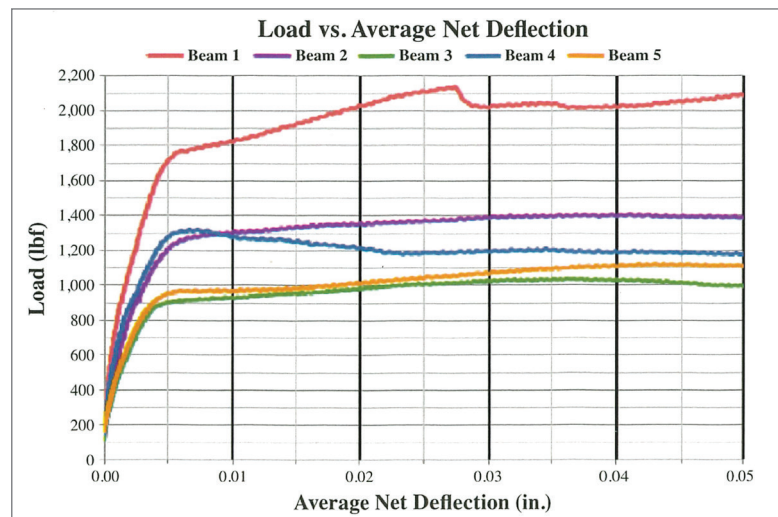
- Reduces Bleed Water
- Reduces Plastic Settlement
- Reduces Plastic Concrete Shrinkage
- Reduces Hardened Concrete Shrinkage
- Reduces Fatigue Due to Multiple Axle Loadings
- Reduces Permeability
- Increases Impact Resistance
- Increases Surface Abrasion Resistance
- Increases Post-First Crack Load Carrying Capacity
- Increases Ductility/Modulus of Elasticity

The Applications

Applications include both cast-in place and precast concrete elements, which include:

- Slabs-on-Ground
- Slabs-on-Metal Deck
- Topping Slabs on both Concrete and Asphalt
- Bridge Decks
- Shotcrete
- Septic Tanks
- Burial Vaults

ASTM C1399
Durastran® 4X at 5 pcy
28 days



The Mixing Instructions

Loading and Mixing of the Durastrand 4X include:

- Adding the fiber prior to introducing the conventional materials. Make sure the drum is rotating at mixing speed prior to introducing the conventional concrete materials.
- Adding the fibers in the pre-weighed degradable bags after all conventional materials have been added and thoroughly mixed is the standard. Bags may be added manually at the throat of the drum or with the use of a conveyor belt.

Mixing time is 70 mixing revolutions or approximately 5 minutes.

- Central Mixers require the pre-weighed bags be added with the conventional materials. Mixing times needs to be increased to insure thorough distribution of the fibers.

General Dosage Information

Being a macro synthetic fiber, the standard dosage rate ranges from 3 pcy to 7.5 pcy for typical cast-in-place concrete, as well as precast. For shotcrete and special applications the range will extend to approximately 11 pcy.

The Steel Deck Institute has a special for use in Composite Metal Deck. The minimum dosage is 4 pcy.

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