



FABPRO POLYMERS'
OMEGA™ II
Steel Reinforcing Fiber

DESCRIPTION

The carbon steel fibers in OMEGA™ II meet the requirements of ASTM A820/A820M, Type II “Standard Specification for Steel Fibers for Fiber-Reinforced Concrete” and are approved for use in composite metal deck systems by the Steel Deck Institute.

APPLICATIONS

Recommended for use in:

- Any SOG application, to increase impact and shatter resistance
- Composite metal deck systems
- Driveways & loading areas, to increase fatigue strength
- Pavement, parking lots and overlays
- Applications where controlling drying shrinkage & temperature cracks are important
- Shotcrete
- Extending joints in slab-on-ground floors

FEATURES

FABPRO POLYMERS’ OMEGA™ II Steel Reinforcing Fiber is a low carbon, cut sheet, steel fiber. This industry proven fiber provides a reinforcement system that addresses restrained shrinkage in concrete slabs. The OMEGA™ II Steel Fibers are uniformly distributed throughout the concrete to assure the owner, contractor and engineer excellent crack control.

OMEGA™ II Steel Reinforcing Fiber can significantly enhance direct tensile strength and eliminate WWM and rebar in residential, commercial and industrial applications. OMEGA™ II meets the requirements of ATSM A820/A820M, Type II “Standard Specification for Steel Fibers for Fiber-Reinforced Concrete” and is also approved for use in composite metal deck systems by the Steel Deck Institute.

BENEFITS

Versus rebar and WWM, OMEGA™ II Fibers:

- Are always positioned properly when mixed according to ASTM C94/C94M.
- Save time and money.
- Improve impact and abrasion resistance.
- Enhance durability and toughness.
- Eliminate the on-the-job safety concerns associated with using WWM and rebar.
- Provide improved crack control.

PERFORMANCE CHARACTERISTICS

Specific Gravity	7.86
Melting Point	2760°F (1516°C)
Ignition Point	1500°F (816°C)
Absorption	Nil
Tensile Strength	60 - 120 ksi (414 - 828 MPa)
Fiber Length	1.0” (25mm)
Aspect Ratio	43
Fiber Count	8,000 fibers/lb (0.45 kg)





GUIDELINES FOR USE

Dosage: OMEGA™ II Fibers are typically added at a dosage rate of 15 to 25 lb/yd³ (8.9 kg/m³ to 14.8 kg/m³) in standard jointed floors based on ACI 360 design guidelines. Dosages up to 65 lb/yd³ (38.6 kg/m³) can be used in extended jointed floors. For extended joint floors beyond the standard ACI 360 design guidelines for slabs on supported ground construction, FABPRO recommends consulting our design engineer and design program for proper dosage rates.

Mixing, Placing, and Finishing: OMEGA™ II Fibers are packaged in 50 lb/yd³ (29.7 kg/m³) boxes and can be introduced into the truck before, during or after batching. Please follow proper mixing procedures as specified in ASTM C94/C94M.

OMEGA™ II Fibers can be pumped and placed using conventional equipment. Hand screeds can be used, but vibratory and laser screeds are recommended to provide added compaction and to help bury the fibers below the surface.

Normal finishing equipment and techniques can be used when finishing. Troweling blades should be kept flat for as long as possible to insure a fiber free surface.

Standard practices detailed in ACI 544-3R for placing, finishing and curing fiber concrete should be followed when using OMEGA™ II Fibers.

ENGINEERING SPECIFICATIONS

OMEGA™ II Fibers are for the control of cracking due to drying shrinkage, thermal expansion and contraction, and to address impact and shatter resistance. OMEGA™ II Fibers from FABPRO POLYMERS comply with applicable building codes and ASTM C1116/C1116M Section 4.1.3, Type I, and are approved for use in composite metal deck systems by the Steel Deck Institute.

OMEGA™ II should be specified for use in concrete slabs:

- To limit the width of cracks that occur between joints
- To enhance aggregate interlock at the joints
- To improve impact resistance
- To provide superior crack control
- To control drying shrinkage cracking and temperature cracking

FABPRO's OMEGA™ II Fibers should not be used to replace structural, load-bearing reinforcement. OMEGA™ II Fibers should not be used as a means of reducing thickness of concrete sections below original design, nor to increase joint spacing past those dimensions suggested by PCA and ACI industry standard guidelines without first consulting our design engineer and design program for proper dosage rates.

STORAGE AND HANDLING

Storage Temperature: OMEGA™ II Fibers should be stored at temperatures below 140°F (60°C). Use caution when stacking to avoid unstable conditions. Store in a sprinkled warehouse.

PACKAGING

OMEGA™ II Fibers are available in 50 lb. (22.7 kg) boxes and 2,400 lbs. (1,089 kg) to a pallet. The boxes are palletized and stretch-wrapped to prevent damage from shipping and handling.

RELATED DOCUMENTS

Safety Data Sheets: OMEGA™ II Fiber

ADDITIONAL INFORMATION

For additional information on OMEGA™ II Fibers, contact your local sales representative or Customer Service at (800) 821-4391.

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