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|----------|---------------------------------------|
| 03 30 00 | <b>Cast-in-Place Concrete</b>         |
| 03 40 00 | <b>Precast Concrete</b>               |
| 03 70 00 | <b>Mass Concrete</b>                  |
| 31 74 16 | <b>Precast Concrete Tunnel Lining</b> |

# MasterFiber<sup>®</sup> 520

## Type II Steel Fiber

### Description

MasterFiber 520 product is a low carbon, end deformed steel fiber manufactured in compliance with ASTM A820/A820M "Standard Specification for Steel Fibers for Fiber-Reinforced Concrete". MasterFiber 520 product can be used in producing Type I Steel Fiber-Reinforced Concrete meeting the requirements of ASTM C1116/C1116M "Standard Specification for Fiber-Reinforced Concrete".

### Applications

Recommended for use in:

- Industrial flooring
- Commercial flooring
- Residential foundations
- Basement walls
- Pavements
- Compression layers
- Precast tunnel segments
- Mass concrete
- Overlays
- Footings/Foundations
- Precast elements

### Features

- Uniform distribution throughout the concrete matrix
- Loose fibers specially designed to avoid balling problems
- Proactive temperature-shrinkage reinforcement
- Excellent placement and finishability characteristics

### Benefits

- Eliminates the need for welded-wire reinforcement (WWR) and small diameter bars used as secondary reinforcement, depending on the application
- Effective tight crack control
- Provides excellent control of settlement cracking
- Reduces construction time and overall labor and material costs
- Increases flexural toughness, impact and shatter resistance
- Provides higher energy absorption and increases concrete ductility
- Facilitates sustainable construction

### Performance Characteristics

#### Typical Physical Properties

|                  |                    |
|------------------|--------------------|
| Specific Gravity | 7.85               |
| Melting Point    | 2000 °F (1093 °C)  |
| Length           | 1.5 in. (38 mm)    |
| Aspect Ratio     | 56                 |
| Tensile Strength | ≥ 50 ksi (345 MPa) |

### Guidelines for Use

**Dosage:** For most applications, the typical recommended dosage will be in the range of 20 to 80 lb/yd<sup>3</sup> (12 to 48 kg/m<sup>3</sup>). However, depending on the specific application, a dosage outside of the typical range may be required. Please contact your local sales representative, if dosages outside the recommended range are required.

**Mixing:** Never add fibers as the first component in the mixer or during the addition of cementitious materials. Fiber boxes should be opened, and the fibers introduced together with sand and coarse aggregates.

### Suggested Specification Language

Steel fiber shall meet the requirements of ASTM A820/A820M Type II steel fiber and designed for use in making fiber-reinforced concrete complying with ASTM C1116/C1116M. Product shall be MasterFiber 520 by Master Builders Solutions.

### Storage and Handling

**Storage Temperature:** MasterFiber 520 product should be stored in a clean, dry area. Avoid storing near wet and high humidity areas. Use caution when stacking to avoid unstable conditions.

### Packaging

MasterFiber 520 product is packaged in 50 lb (22.7 kg) carton boxes.

### Additional Information

For additional information on the MasterFiber 520 product, contact your local sales representative.

*Master Builders Solutions creates technologies for the construction industry inspiring people to build better. We are active in ~40 countries and operate 35 production sites with over 1,600 employees. We develop, produce, and market high-quality chemical admixtures, as well as adjacent core technologies, to master the challenges of today and support a decarbonized future. Our people are pivotal and pair leading technologies and a strong brand heritage to surpass our customers' expectations and drive continuous value creation.*

### Limited Warranty Notice

Master Builders Solutions Admixtures US, LLC ("Master Builders Solutions") warrants this product to be free from manufacturing defects and to meet the technical properties on the current Technical Data Guide, if used as directed within shelf life. Satisfactory results depend not only on quality products but also upon many factors beyond our control. MASTER BUILDERS SOLUTIONS MAKES NO OTHER WARRANTY OR GUARANTEE, EXPRESS OR IMPLIED, INCLUDING WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE WITH RESPECT TO ITS PRODUCTS. The sole and exclusive remedy of Purchaser for any claim concerning this product, including but not limited to, claims alleging breach of warranty, negligence, strict liability or otherwise, is shipment to purchaser of product equal to the amount of product that fails to meet this warranty or refund of the original purchase price of product that fails to meet this warranty, at the sole option of Master Builders Solutions. Any claims concerning this product must be received in writing within one (1) year from the date of shipment and any claims not presented within that period are waived by Purchaser. MASTER BUILDERS SOLUTIONS WILL NOT BE RESPONSIBLE FOR ANY SPECIAL, INCIDENTAL, CONSEQUENTIAL (INCLUDING LOST PROFITS) OR PUNITIVE DAMAGES OF ANY KIND.

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