



Concrete Admixtures and Fiber

## IMIFIBER-M

Steel Reinforcement Fiber for Concrete and Shotcrete

### DESCRIPTION

**IMIFIBER-M** are steel fibers, proven to be of extreme quality, in terms of metallurgical and dimensional tolerance. The use of **IMIFIBER-M** greatly minimize cracks and increase strength. **IMIFIBER-M** make possible the design of thinner slabs and easier placement, consequently lower general costs. The increase of the improving flexural and ductility, improve even more the cracks control, the shear strength, impact and abrasion resistance. This technology offers a superior performance in shotcrete from tunneling and stabilization of side walls in dry and wet shotcrete. **IMIFIBER-M** lower the costs of the installation and maintenance of shotcrete.

### USES

- Industrial Floors (new and overlays)
- Airports
- Highway Pavements
- Bridge Overlays
- Marine
- Shotcrete
- Concrete Pipe
- Retaining Walls (Poured)

### TECHNICAL INFORMATION

#### Specifications

**IMIFIBER-M** meets the specification for (Standard Low Carbon Steel Fiber) ASTM A820 (Type I/Type II)

**IMIFIBER-M** is normally package in boxes with 50 lbs (25 kg) Per box.

The length of the fiber is 1 inch (25 mm), 1-1/4 inch (32 mm) or 1-1/2 inch (38 mm) depending in the application in which it is going to be used. For concrete pumping or for shotcrete, we suggest length 1 inch (25 mm)

## INTERNATIONAL MATERIALS INDUSTRIES, L.L.C.

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TABLE 1 - Nominal **IMIFIBER-M** Proportions In Various Applications

APPLICATIONS	LBS./ Y <sup>3</sup>	(KG./M <sup>3</sup>
Industrial Floors (new and overlays)	20 to 120	12 to 72
Airports	20 to 160	12 to 95
Highway Pavements	50 to 140	30 to 78
Bridge Overlays	50 to 160	12 to 95
Marine	40 to 160	12 to 95
Shotcrete	40 to 120	12 to 95
Concrete Pipe	100 to 120	12 to 95
Retaining Walls (Poured)	40 to 60	24 to 36

### **Mixing, Placing and Finishing**

The common method to introduce [IMIFIBER-M](#) into the mix is by emptying the boxes directly to the mixing system. After the fibers has been introduced to the mixing system, only three or four minutes at mixing speed are required. After this, normal speed can be maintained.

[IMIFIBER-M](#) can be placed using conventional methods, directly from the truck mixer shoot, or by pumping. This last method might require a review of the mix design to insure optimum fluidity.

Before the beginning of the project, the mix design of the concrete as design by the engineer, using the specified fiber, should be evaluated to insure that the design properties are obtained and that the mix has the appropriate consistency.

The Placing and finishing of the concrete with [IMIFIBER-M](#) requires only standard equipment. The operation sequence is maintain consistent with that of conventional concrete.

### **LIMITATIONS**

When a concrete pump is used, IMI,L.L.C. recommends to maintain the shoot of the truck mixer approximately from 12 to 18 inches (30 to 45 cm.) over the screen of the receiver of the pump. This will reduce any potential of the reinforcing steel to clog the flow thru the screen. Never remove the screen from the receiver when pumping concrete with steel fibers.