

## POLYOLEFIN FIBERS MPH FIBER PLUS 48

### **Product description**

MPH FIBER PLUS are structural macro synthetic fibers for concrete reinforcement. Physical and chemical treatments assure the best concrete adherence and the highest toughness and energy absorption.



### **Properties**

- High energy sorption and high toughness.
- Reduction of micro-shrinkage fissures during drying and avoiding the formation of larger cracks.
- Reduces permeability.
- Increased resistance to impact and abrasion.
- Reduces the risk of breaking up the mass.
- Not affected by oxidation and corrosion processes unlike steel reinforced concrete.

### **Aplicattions**

- Structural concrete reinforcement.
- Shotcrete and coating concrete (tunnels).
- Industrial floors and slabs.
- Precast concrete.
- And in general, for concrete in which it seeks to increase the tensile properties, impact and capacity of absorption (dissipation) of energy.

### **Technical characteristics:**

- Raw material: 100% polyolefin
- Density: 0,91 gr/cm<sup>3</sup>

#### **MyPHor Materiales Especiales, S.L.**

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- Moisture absorption: Null
- Fluidity : 1,8 a 3,2 gr/minute ASTM D-1238.
- Colour: Black.
- Transformation process: Extrusion.
- System: Flat and embossed Monofilament.
- Tensile strength: 560 MPa. ASTM D-638.
- Elongation: 7% ASTM D-638.
- Elastic modulus: 20,5 GPa. ASTM D-790.
- Temperature Distortion: 110° C ASTM D-648.
- Decomposition temperature: 280° C ASTM D-648.
- Thickness of the fiber: 5.700 deniers .
- Equivalent Diameter =0,93 mm aprox.; (section = 0,5 mm<sup>2</sup>).
- Fiber length : 48 mm.

## **Dosage**

- Floors and slabs: Recommended dosage is in the range of 2 kg/m<sup>3</sup> to 10 kg/m<sup>3</sup>, depending on the structural specifications, but current dosages are 3 – 4 kg/m<sup>3</sup>
- Shotcrete: Recommended dosage is between 3 kg/m<sup>3</sup> and 10kg/m<sup>3</sup>, although regular dosages are in the range of 3 kg/m<sup>3</sup> to 6 kg/m<sup>3</sup>. The dosage ratio compared with the steel fibers to equalize energy absorption is between 1 / 6 and 1 / 9, depending on the type of fiber, and inter - action with the prescribed shotcrete.
- Adjustment of dosages based on the project strength parameters requires prior testing.

## **Way of use**

- Add as another component of the concrete during the mixing process, or on site with additional mixing, but never on the water before adding the rest of the components.

NOTE: Specifications subject to change for improvements



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