

MAC S54

Synthetic Macrofiber

DESCRIPTION

FMAX MAC S54 is a high-performance structural monofilament macrofiber that meets Type 3 requirements according to ASTM C 1609-10 and ASTM C 1116 standards. It is designed for shotcrete and concrete floor construction, replacing traditional steel mesh used for temperature reinforcement.

MACROFIBER FMAX MAC S54 provides multidirectional reinforcement to concrete, resulting in increased flexural strength, energy absorption, stress toughness, impact and abrasion resistance. It also reduces the formation of cracks due to plastic shrinkage and elastic deformation during service.

Its unique shape and consistency allow MACROFIBER FMAX MAC S54 to not interfere with the typical mechanical finishing process of industrial concrete floors, resulting in a smooth surface finish.

Furthermore, the use of MACROFIBER FMAX MAC S54 as a substitute for the traditional steel mesh offers significant cost savings in materials and installation time. Additionally, it is lighter, environmentally friendly, and easier to use compared to steel mesh.

HOW TO USE

Fiber can be dosed during or after the mixing process, except when discharging the cement. Preferably add at the same time as the aggregates. The mixing time will be at least 5 minutes for a better dispersion of the fibers.

It is recommended to follow the mixing procedures indicated in ASTM C94/C94M, as well as to follow the concrete placement, finishing and curing practices specified in ACI 302.

APPLICATIONS

- ✓ Industrial and residential floors.
- ✓ Hydraulic pavement.
- ✓ Tanks and swimming pools.
- ✓ Shotcrete.
- ✓ Stamped concrete.
- ✓ Docks and parking lots.
- ✓ Concrete walls.
- ✓ Steel deck systems.
- ✓ Rooftop compression slabs.
- ✓ Partial reinforcement for industrialized housing walls.
- ✓ Reinforcement of elements that require non-metallic materials.

BENEFITS

- ✓ Cost savings compared to steel mesh.
- ✓ Reduces construction time.
- ✓ Eliminates errors in mesh placement.
- ✓ Improves resistance to tensile/flexural stresses.
- ✓ Reduce slab thickness with proper design.
- ✓ Improves concrete toughness.
- ✓ Good energy dissipation capacity.
- ✓ Reduces concrete segregation.
- ✓ Promotes homogeneous bleeding of concrete.
- ✓ Reduces the risk of breakage and spalling at angles and corners.
- ✓ Eliminates the risk of injury from handling steel mesh.
- ✓ Three-dimensional reinforcement has an advantage over two-dimensional steel mesh.

TECHNICAL DATA

Material: Polypropylene
 Length: 54 mm +/- 5%
 Color: White
 Density: 0.91 g/cm³
 Shape: Stick
 Melting Point: 160 °C
 Elastic Modulus: >10 MPa +/- 10%
 Tensile Strength: 650 MPa +/- 5%
 Fibers/Kg: >50,000
 Absorption: None
 Alkali Resistance: Excellent
 Acid Resistance: Excellent

SUGGESTED DOSAGE

Dosage rate depends on specific application, however minimum dosage rate is between 2 kg and 6 kg.

PACKAGING

Water soluble wraps 120 gr approx
 5 kg/ box (11 lb).
 200 boxes per pallet =1 ton.