

FORTIUS

ENDURO HPP 45

FEATURES

- Synthetic Macro fibers to reinforce concrete , shotcrete and mortars.
- Optimal ratio: strength/specific surface.
- Very good distribution in the concrete matrix, while the concrete remains easy to work, due to the puck form.
- Good resistance to all acids and alkalis
- Invisible at the concrete surface, when applied properly.
- Non conductive and no rust formation.

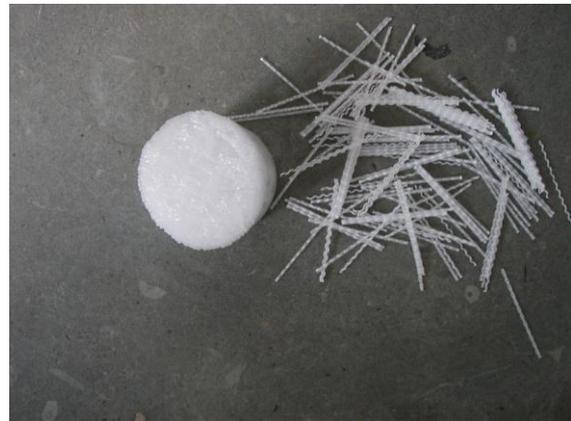
APPLICATION

- Prevents the formation of plastic shrinkage cracks and reinforces concrete and shotcrete.
- Increasing the ductility of concrete .
- Increases the impact resistance and durability of concrete.
- Reduces damage on transport of prefab concrete .
- Allows faster removing of the formwork: faster execution due to a better cohesion.
- Reduces the porosity and permeability of concrete. Increasing of the liquid density and thus better freeze/thaw resistance. The penetration of salts is hampered.
- Structural reinforcement of: concrete floors (interior and exterior) , roads, prefab elements, basement walls, transformer pads, run-and taxiways, concrete in corrosive environment, etc

TECHNICAL CHARACTERISTICS

Raw Material	Polyolefine
Density	910 kg/m ³
Fiber length	45 mm

Fiber Diameter	0,95 mm
Colour	Transparent/white
Tensile strength	400 N/mm ²
E-modulus 1%	9 GPa
Fibers per kg	25.000 fibers/kg
Max. temperature	145 °C
In compliance with : ASTM C 1116 Type III4.1.3	



DOSAGE

Enduro HPP 45 can be added in a ratio of 3 to 7 kg fibres per m³.

Enduro HPP 45 can be pumped or shotcreted.

PROCESSING

When adding up to 5 kg/m³ there is no need to adapt the composition of the concrete. Where greater quantities of fibre are added, a plastifier should be added at 0.5% of cement content and this in order to maintain the same working qualities.

SECURITY

No ecological, toxicological or safety risks.
Unlike steel reinforcement there is no risk of injury from protruding fibres. Fibres that stick out disappear with polishing. On unpolished concrete, they can be removed with a flame torch.
A 91/155/EC material safety data sheet is available on request.

PACKAGING

Packaged in boxes of 10 kg.
Per pallet: 80 boxes of 10 kg = 800 kg



TECHNICAL REPORTS

- ASTM C1116 Standard Specification for Fiber-Reinforced Concrete and Shotcrete
- ASTM C1018 Standard Test Method for Flexural Toughness and First Crack Strength of Fiber-Reinforced Concrete
- Concrete Society (UK) Technical Report 34 Concrete Industrial Floors
- CE Marking : European standard EN 14889 Part 2 : Polymer fibres

The above mentioned values are indicative and are provided without any guarantee.
BK International does not assume any responsibility resulting from the application of these data.