Shieldfibre UHPC13

Steel fibers

TECHNICAL DATA SHEET

Description

Shieldfibre UHPC13 is a Steel fiber designed for Ultra High-Performance Concrete (UHPC).

Uses

- Industrial and Commercial Floors, warehouses, factories, showrooms.
- Pavements and Runways.
- Precast Concrete Elements.
- Shotcrete and tunneling, underground tunnels, retaining walls, slope stabilization.
- Infrastructure applications.
- High-Performance Concrete (UHPC).

Characteristics / Advantages

- Increases ultimate load-bearing capacity and structural performance.
- Provides uniform, multidirectional reinforcement with high tensile strength.
- Reduces shrinkage cracking.
- Enhances concrete toughness, ductility, energy absorption, and post-cracking performance.
- Improves impact, fatigue, abrasion, and shear resistance.
- Bridges cracks and improves aggregate interlock, enhancing load transfer across cracks.
- Provides a cost-effective reinforcement solution.

Standard Compliance

- ASTM A820.
- EN 14889-1.

Typical Properties

Base Material	Bright, High Carbon wire
Nominal tensile strength	2.750 (N/mm²)
Young's modulus	200.000 (N/mm²)
fiber Volume Content	311.518 fibers/kg
fiber Network	242.984 m/m³ at 60 kg/m³

Geometry

Length (l)	13 mm
Diameter (d)	0.20 mm
Aspect Ratio (l/d)	65

Packaging

Shieldfibre UHPC13 is supplied in 20 kg bags.

Dosage

Dosages of 1.5 – 3 vol.% steel fibers allow UHPC to develop a strain-hardening behavior.

Storage

Shieldfibre 3D should be protected against rain, snow and heat sources.

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