TECHNICAL DATA SHEET

FLOREY® Concrete Engineering Fiber

Polypropylene Steel-Imitated Fiber

Fiber for Concrete and Mortar Reinforcement

Supplier: Luoyang Florey Import and Export Co., Ltd.
Website: www.floreyconcrete.com

Product Description

Synthetic macrofibre for concrete reinforcement.

Applications

1. Road engineering: Used in pavement and base concrete to improve flexural strength, fatigue resistance, and erosion resistance.
2. Bridge engineering: Incorporated into bridge deck concrete to enhance crack resistance and extend service life.
3. Airport runways: Added to runway concrete to improve impact resistance, abrasion resistance, and freeze–thaw durability.
4. Ports and docks: Used in quay yard and breakwater concrete to enhance resistance to seawater corrosion and heavy loads.

Product Specification

Item	Specification
Density	0.91g/cm³
Fiber type	Bamboo-shaped, wavy
Melting point	170°C
Tensile strength	≥450 MPa
Initial modulus	≥5000 MPa
Elongation at break	15%-30%
Equivalent diameter	0.9 mm

Guidelines for Use

• General crack control (floors, walls, ordinary structural members): 3 kg/m³ (30–36 mm fibers), used to control plastic and drying shrinkage cracking.
• Medium to high crack resistance / impermeability (basements, water tanks, bridge deck pavements): 4.5–6 kg/m³, balancing toughness and workability.
• Impact resistance / abrasion resistance (airport pavements, hydraulic spillways, tunnel shotcrete): 6–9 kg/m³; for shotcrete, fiber length ≤25 mm is recommended to prevent hose blockage.
• Steel fiber replacement (C40+ structural concrete): 6–8 kg/m³, often combined with 0.9 kg/m³ polypropylene monofilament fibers to further enhance crack control. Confirm fiber selection and dosage through project-specific mix trials.

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