

Technical Data Sheet (TDS)

Polyester Fiber for Concrete (HPM® PET)

Product Description

■ PIONEER® HPM® PET is a high-performance monofilament polyester fiber designed specifically for fiber reinforcement in concrete and dry-mix mortars. Made from 100% modified polyester, these micro synthetic fibers form a durable 3D fiber network, enhancing tensile and flexural performance while effectively controlling plastic shrinkage cracking.

Technical Specifications

Property	Value
Material	100% Modified Polyester
Fiber Type	Monofilament Micro Synthetic Fiber
Diameter	0.02 mm
Lengths	6 mm, 12 mm, 19 mm
Tensile Strength	600 MPa
Modulus of Elasticity	7 GPa
Specific Gravity	~1.38 g/cm³ (implied from polyester)
Chemical Resistance	Excellent alkali and acid resistance
Color	White

Standards Compliance

- ASTM C1116/C1116M
- EN 14889-2:2006

Packaging Options

- Bulk: Ton bags
- Small Packs: Plastic or water-soluble pouches
- OEM/ODM: Available for distributors

Key Benefits

- Superior control of plastic shrinkage cracking
- Increased abrasion and impact resistance
- Excellent chemical durability
- Compatible with standard concrete and mortar designs
- Easy to finish, invisible in surface
- Cost-effective reinforcement alternative

Applications

- Slabs, floors, pavements
- Industrial floors, precast concrete
- Waterproof structures (tunnels, tanks, pools)
- Shotcrete applications
- Repair mortars and overlays
- Dry-mix mortars, plasters, tile adhesives

Recommended Usage

- Dosage: 0.6 – 1.8 kg/m³ (typical: 0.9 kg/m³)
- Lengths: 6–12 mm for mortars 12–19 mm for concrete
- Mixing: Add with cement and aggregates; extend mixing time to ensure uniform dispersion.
- Placement: Does not replace structural steel. Use standard placing and curing techniques.

Contact

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