



Bamboo Synthetic PP Macrofiber (BS SPM-40)

Product Description

Fiberego's Bamboo Synthetic PP Macrofiber BS SPM-40 is a 40mm polypropylene fiber engineered to mimic the structural benefits of steel in concrete reinforcement. This innovative fiber offers a cost-effective, sustainable, and safer alternative to traditional reinforcement materials, designed to integrate seamlessly into various concrete mixes and enhance the overall performance of concrete structures.

Technical Specifications

| | |
|------------------------|---------------------------|
| Composition | 100% Virgin Polypropylene |
| Diameter | 0.2, 0.6, 0.8, 1.0mm |
| Length | 40mm |
| Tensile Strength | ≥400MPa |
| Elastic Modulus | ≥4.0GPa |
| Elongation | 20 - 25% |
| Alkali&Acid Resistance | High |

Product Advantages

- **Enhanced Concrete Performance:** The fiber's unique design minimizes voids within the concrete matrix, increasing its overall strength and durability.
- **Cost-Effective and Efficient:** Provides a three-dimensional reinforcement solution that reduces the need for traditional wire mesh or rebar, lowering material and labor costs.
- **Improved Safety:** Significantly reduces on-site hazards by eliminating the need to lift, bend, and tie heavy steel, enhancing job site safety.
- **Environmental Sustainability:** Offers a greener alternative by reducing embodied carbon compared to conventional steel reinforcements.
- **Increased Durability:** Resistant to chemical attacks and completely corrosion-free, extending the lifespan of concrete infrastructures.
- **Reduced Construction Time:** Simplifies the construction process as it does not require cutting, placing, tying, or charring, speeding up project completion.
- **Enhanced Toughness and Flexibility:** Increases the ductility and flexural toughness of concrete, providing superior post-crack reinforcement.

Applications

- | | |
|--------------------------|----------------------------|
| 1. Slab-on-ground | 13.Sprayed concrete |
| 2. Extending joints | 14.Rock and ground support |
| 3. Pavements | 15.Temporary and permanent |
| 4. Composite metal decks | concrete linings |
| 5. Mass concrete | |
| 6. Bridge decks | |
| 7. Sidewalks | |
| 8. Overlays | |
| 9. Precast elements | |
| 10.Industrial slabs | |
| 11.Concrete linings | |
| 12.Slope stabilization | |

FAQs

Q1: How does BS SPM-40 contribute to environmental sustainability in construction?

A1: By replacing traditional steel reinforcement, BS SPM-40 reduces the carbon footprint associated with steel production and disposal.

Q2: Can BS SPM-40 be used in load-bearing structures?

A2: Yes, BS SPM-40 is designed for use in a variety of structural applications, providing enhanced strength and durability comparable to traditional steel reinforcements.

Q3: What are the primary benefits of using BS SPM-40 in concrete applications?

A3: BS SPM-40 offers increased structural integrity, reduced construction time and costs, enhanced safety, and improved environmental sustainability.

Packaging

Inner Packaging:

- **Loose Plastic Bags:** Fibers are packaged loosely in standard plastic bags to preserve quality and prevent damage. Each pack contains 0.2-4 kg, depending on the customer's requirements.
- **Water-Soluble Film Wrapping:** For added convenience and environmental consideration, fibers can also be wrapped in water-soluble film, molded into cylindrical shapes to facilitate usage and disposal.

Outer Packaging:

- **Plastic Bag Packaging:** The plastic-bagged fibers are then placed either in cardboard boxes or woven bags, tailored to meet customer specifications and ensure safe transit.
- **Water-Soluble Film Packaging:** Fibers wrapped in water-soluble film are exclusively packed in cardboard boxes to maintain integrity and ease of handling.

Storage and Transportation

► Storage Requirements:

Store in a dry, cool, ventilated area.
Avoid direct sunlight to prevent degradation from UV exposure.
Keep away from humid environments to maintain fiber performance.
Avoid heavy pressure and high stacking to prevent packaging damage.

► Transportation Precautions:

Handle carefully during loading and unloading to prevent damage.
Ensure the transport vehicle is dry and clean to avoid moisture.
Protect from sharp objects and prevent heavy items from crushing the packaging.

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Fiberego is a global manufacturer of fibers, specializing in a variety of fibers for the concrete industry.



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