

Black Embossed Synthetic PP Macrofiber (BE SPM-54)

Product Description

Fiberego's BE SPM-54, a 54 mm black embossed synthetic polypropylene fiber, is engineered as a high-performance alternative to traditional steel fibers, wire mesh, and rebar in concrete reinforcement. This product is designed to integrate seamlessly with concrete mixes, enhancing durability, reducing environmental impact, and improving safety on construction sites.

Technical Specifications

Composition	100% Virgin Polypropylene
Diameter	0.2, 0.6, 0.8, 1.0mm
Length	54mm
Tensile Strength	≥400MPa
Elastic Modulus	≥4.0GPa
Elongation	20 - 25%
Alkali&Acid Resistance	High

Product Advantages

- **Superior Concrete Integrity:** Reduces voids within the concrete matrix for stronger and more uniform structures.
- **Cost-Efficiency:** Provides a cost-effective reinforcement solution that can reduce or even replace traditional steel fibers and rebar.
- **Enhanced Safety:** Eliminates the need for heavy lifting and reduces tripping hazards on construction sites by removing traditional steel reinforcement processes.
- **Environmental Benefits:** Contributes to sustainability by replacing steel with a synthetic material that has a lower carbon footprint.
- **Increased Durability:** Resistant to chemicals and corrosion, ensuring long-lasting performance under various environmental conditions.
- **Construction Efficiency:** Streamlines project timelines with easy-to-use degradable bags and no need for cutting, tying, or chairing.
- **Improved Concrete Properties:** Enhances ductility, flexural toughness, and offers superior post-crack performance.

Applications

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

FAQs

Q1: How does BE SPM-54 improve the sustainability of construction projects?

A1: By reducing the reliance on steel, BE SPM-54 lowers the overall carbon footprint of construction projects and minimizes environmental impact.

Q2: Can BE SPM-54 be used in structural applications that traditionally rely on heavy steel reinforcement?

A2: Yes, BE SPM-54 is engineered to provide equivalent or superior reinforcement compared to steel, suitable for heavy-load applications such as bridge decks and industrial floors.

Q3: What are the handling and installation benefits of using BE SPM-54 in construction?

A3: BE SPM-54 increases safety by removing the need for traditional rebar handling and is easily integrated into concrete mixes, reducing installation time and labor costs.

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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