



Twisted Bundle PP Fiber (TBPM B-54)

Product Description

Fiberego's TBPM B-54 is a 54mm twisted bundle polypropylene fiber, meticulously engineered to enhance concrete performance across various applications. This product offers superior durability and structural integrity, making it an ideal choice for reinforcing concrete. The twisted bundle design ensures excellent bonding with the concrete matrix, providing enhanced crack resistance and load distribution.

Technical Specifications

Composition	100% Virgin Polypropylene
Diameter	1.2mm
Length	54mm
Alkali&Acid Resistance	High
Tensile Strength	≥400MPa
Elastic Modulus	≥3.5GPa
Elongation	20 - 25%
Melting Point	160-170°C

Product Advantages

- **Superior Crack Resistance:** Significantly mitigates the formation and propagation of cracks within the concrete, enhancing structural longevity.
- **Improved Load Distribution:** Helps distribute stress more evenly across the concrete structure, reducing the likelihood of failure under load.
- **Enhanced Durability:** Increases the concrete's resistance to environmental and mechanical stresses, contributing to a longer lifespan.
- **Optimized Bonding:** The unique twisted design allows for better bonding within the concrete mix, improving overall reinforcement efficiency.
- **Cost-Effective:** Reduces the need for traditional steel reinforcement, lowering material costs and simplifying the construction process.
- **Environmental Resistance:** Offers resistance to chemical attack and moisture ingress, ideal for challenging environments.
- **Ease of Use:** Designed for easy mixing and application, ensuring consistent distribution throughout the concrete without clumping.

Applications

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| 1. Infrastructure projects (bridges, roads) | 9. Underground utilities |
| 2. Industrial flooring | 10. Parking lots |
| 3. Commercial building foundations | 11. Sports arenas and recreational facilities |
| 4. Precast concrete elements | 12. Landscape architecture |
| 5. Residential construction projects | 13. Tunnel linings |
| 6. Airport runways and taxiways | 14. Retaining walls |
| 7. Seismic retrofitting | 15. Decorative concrete |
| 8. Marine and waterfront structures | |

FAQs

Q1: How does TBPM B-54 enhance the structural integrity of concrete?

A1: TBPM B-54 fibers integrate with the concrete matrix to provide multidirectional reinforcement that enhances tensile strength and reduces the likelihood of crack development under stress.

Q2: Can TBPM B-54 be used as the sole reinforcement in concrete structures?

A2: While TBPM B-54 significantly enhances concrete properties, it should be used as part of a comprehensive reinforcement strategy that may include traditional materials, depending on the structural requirements.

Q3: Is TBPM B-54 suitable for use in environmentally sensitive areas?

A3: Yes, TBPM B-54 is made from polypropylene, which does not leach harmful chemicals and is resistant to decay, making it suitable for environmentally sensitive applications.

Packaging

- **Inner Packaging:** Each pack contains 0.2-4 kg, sealed in standard plastic bags for quality preservation.
- **Outer Packaging:** Packs are placed in woven bags or cardboard boxes, each weighing 10-20 kg, tailored to customer specifications.
- **Compression Packaging:** Reduces volume for efficient storage and transport, enhancing cost-effectiveness and sustainability.

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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