



# High Tensile Strength Polyester Fiber (HTS PF-18)

## Product Description

Fiberego's HTS PF-18 is an 18mm high tensile strength polyester fiber engineered to significantly enhance the performance and durability of concrete structures. This fiber is specifically designed to improve the mechanical properties of concrete, making it ideal for demanding construction environments where strength, flexibility, and longevity are critical.

## Technical Specifications

Composition	Organic dibasic acid and diol
Diameter	12-18 $\mu$ m
Length	18mm
Melting Point	160-170°C
Tensile Strength	$\geq 1000$ Mpa
Elastic Modulus	$\geq 6.0$ GPa
Elongation	15-20%

## Product Advantages

- **Increased Durability:** Enhances the concrete's ability to withstand wear and environmental conditions, thereby extending the lifespan of structures.
- **Superior Crack Resistance:** Significantly improves the concrete's resistance to cracking under both thermal and mechanical stresses.
- **Enhanced Flexural Strength:** Provides greater flexural strength to concrete, which is crucial for load-bearing applications.
- **Improved Impact Resistance:** Increases the concrete's capacity to absorb and dissipate energy from impacts, reducing the risk of damage.
- **Corrosion Resistance:** Unlike metal reinforcements, polyester fibers do not rust, maintaining the structural integrity of concrete.
- **Ease of Use:** These fibers are easy to handle and mix into concrete, ensuring even distribution without clumping.
- **Cost-Effective:** Reduces the need for traditional reinforcement materials and methods, lowering overall construction costs.

## Applications

- |                                    |  |
|------------------------------------|--|
| 1. Commercial building slabs       | 12. Sports arenas                      |
| 2. Residential driveways           | 13. Foundation slabs                   |
| 3. Bridge decks                    | 14. Load-bearing walls                 |
| 4. Parking garages                 | 15. Earthquake-resistant constructions |
| 5. Industrial floors               |  |
| 6. Precast concrete products       |  |
| 7. Airport runways                 |  |
| 8. Seismic retrofitting structures |  |
| 9. Tunnel linings                  |  |
| 10. Water channels                 |  |
| 11. Marine docks                   |  |
| 12. Sports arenas                  |  |

## FAQs

### Q1: What are the primary benefits of using HTS PF-18 in concrete construction?

A1: HTS PF-18 enhances concrete's tensile strength, crack resistance, and durability, making it suitable for various structural applications that require enhanced performance.

### Q2: Can HTS PF-18 be used in place of traditional steel reinforcements?

A2: Yes, HTS PF-18 can be used as an alternative to steel in many applications, offering corrosion resistance and reduced structural weight without compromising on strength.

### Q3: Is HTS PF-18 suitable for environmental exposure?

A3: Absolutely, HTS PF-18 is highly resistant to environmental factors such as moisture and chemicals, making it ideal for use in outdoor and exposed environments.

## 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.
- **Customized Options:** Available in water-soluble film, water-soluble paper, or regular paper bags for diverse needs.
- **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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