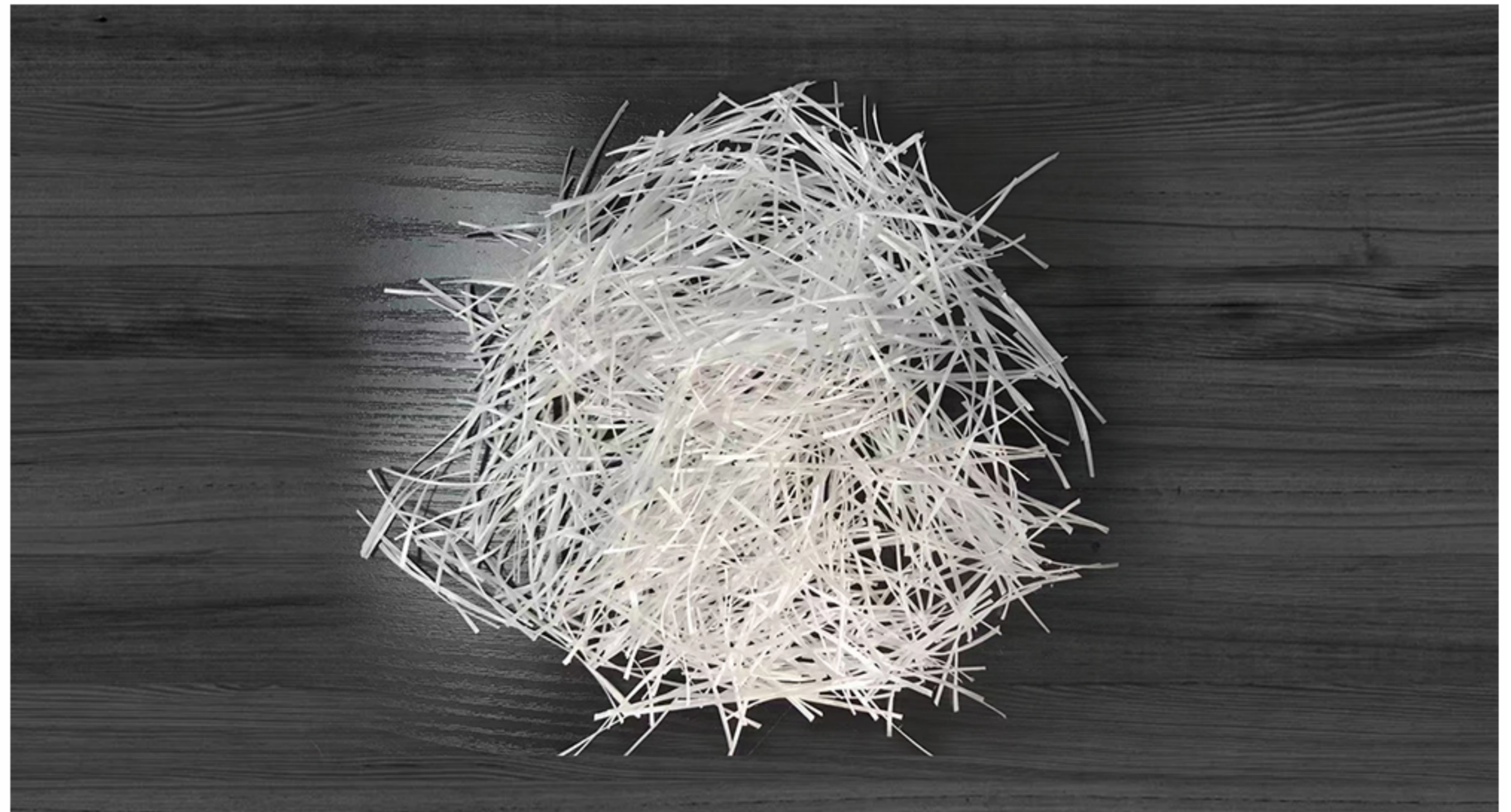




Technology
For Concrete Fibers

Specialty Fibers



Rimix100

Structure Fiber

Rimix100 Structure Fiber, also known as PP Macro Fiber, is a new generation of structural reinforcement and toughening synthetic coarse fiber produced by Paniel. The product combines the functionality of steel fibers with the advantages of synthetic fibers, exhibiting good dispersibility in concrete and bonding strength with the cement matrix. It can be used in reinforced and toughened concrete panel structures, shotcrete, and specialized engineering projects.

OVERVIEW

Rimix100 Structure Fiber is primarily used to replace welded metal grids and steel fibers in concrete panel structures. With a dosage only one-eighth of that of steel fibers, it achieves better crack resistance and reduces project costs. Additionally, Rimix100 Structure Fiber is an inert material, insulating, non-magnetic, and resistant to rust and corrosion. It can be used in projects such as subways, tunnels, and electronics plants that require magnetic shielding and insulation. Unlike steel fibers, it does not protrude or rust during use, eliminating the risk of puncturing tires.

PHYSICAL PROPERTIES

Material	Composite of polypropylene and polyethylene	Shape	Flattened with a slight wave
Density	0.92g/cm ³	Length	12-50mm
Elastic Modulus	≥5000MPa	Tensile Strength	≥500MPa
Equivalent Diameter	0.5-1.5mm	Melting Point	160-170°C

COMPLIANCE

American Concrete Institute (ACI):

- ACI 544.4R: "Guide for the Design and Construction of Fiber-Reinforced Concrete"
- ACI 302: "Guide for Concrete Floor and Slab Construction"

American Society for Testing and Materials (ASTM):

- ASTM C116/C116M: "Standard Specification for Fiber-Reinforced Concrete and Shotcrete"

International Code Council Evaluation Service (ICC-ES):

- International Code Council Evaluation Service (ICC-ES): "Evaluation Report for Products Used in Fiber-Reinforced Concrete"



Suning Wuxi and Hangzhou logistics bases

APPLICATION

Rimix100 Structure Fiber is mainly used in concrete panel structures, reinforcement and localized reinforcement of concrete structures, as well as in shotcrete engineering. Its application areas are as follows:

1.Reinforced Concrete Panel Structures Used in industrial building floors, logistics warehouse floors, bridge decks, airport pavements, aprons, port yard pavements, and panel stack dam pavements to enhance crack resistance, tensile strength, flexural toughness, impact resistance, fatigue resistance, etc., of these panel structures.

2.Special Concrete Structures In buildings, bridge structures, water conservancy and hydropower, port and shipping engineering, used to control cracks and enhance shear performance of structures such as beams and composite beams; reinforcement of complex stress areas such as cantilever structures, gate slots, dam orifice, etc.

3.Shotcrete Used in traffic tunnels, water conveyance tunnels, underground utility tunnels, mines, etc., for shotcrete lining and support.



Industrial Flooring

INSTALLATION

1.Dosage Range: The dosage range of Rimix100 Structure Fiber in concrete is 5–15 lbs/yd³ (3–9 kg/m³), with dosage for crack-resistant reinforced concrete floors being 5– 7.6 lbs/yd³ (3–4.5 kg/m³), and dosage for shotcrete being 6–15 lbs/yd³ (3.6–9 kg/m³).

2.Length Selection: For crack-resistant reinforced concrete, the length is 30–50mm, while for shotcrete, the length is 0.47–0.79 inches (12–20mm).

3.When adding Rimix100 Structure Fiber, the mixing time should be appropriately extended to ensure uniform fiber dispersion.



Warehouse and Logistics Flooring

PACKAGING

The standard packaging is 22 lbs (10 kg) per bag, and it can also be subdivided according to customer requirements. Small packaging options include plastic bags and paper soluble bags.