

# POLYVINYL ALCOHOL FIBER (PVA FIBER)

## TECHNICAL DATA SHEET



Dawnview™ Polyvinyl Alcohol Fiber (PVAF) is an ideal environmentally friendly cement reinforcement material. Due to its unique molecular structure, it exhibits excellent affinity with cement and possesses good alkali resistance and weather resistance. It effectively prevents and suppresses the formation and development of cracks, enhances the flexural strength, impact resistance, and crack resistance of concrete, and improves its impermeability, impact resistance, and seismic capacity. PVAF can be widely used for wall, roof, floor, road, bridge, tunnel, and slope reinforcement in industrial and civil construction.



Currently, in the field of cement concrete engineering, PVAF fibers have gained extensive development prospects in engineering and construction applications due to their unique properties. They are an ideal alternative to asbestos, representing a new type of product.

### PERFORMANCE

- **High strength and low elongation:** Superior mechanical properties.
- **Acid and alkali resistance:** Low strength loss in long-term acidic or alkaline environments.
- **Corrosion resistance:** The fibers remain unaffected by mold, decay, or insect infestation when buried underground for extended periods.
- **Dispersion:** The fibers do not adhere and have good dispersibility in the presence of water, exhibiting good affinity with cement.
- **Crack resistance & waterproofing:** The randomly distributed fibers in the concrete (mortar) effectively prevent the occurrence and development of cracks, improving the waterproofing ability.
- **Impact resistance & seismic resistance:** Effective absorption of impact energy to enhance seismic resistance.
- **Enhanced frost resistance and fatigue resistance of concrete.**
- **Increased toughness:** Improves brittleness and enhances impact resistance and flexural strength.

### APPLICATIONS

- Large-scale concrete pouring and applications such as guardrails, dams, and parking lots.
- Production of concrete components, panels, lightweight wall panels, etc., as a substitute for asbestos and for manufacturing asbestos cement products.
- Shotcrete applications in tunnels, mines, culverts, etc.
- Production of lightweight wall panels, GRC (Glass Fiber Reinforced Concrete) boards, insulation boards, and other building materials.

### TECHNICAL DATA

Type:	Polyvinyl Alcohol Fiber (PVAF)
Fiber length	6mm ( Customizable length )
Fiber diameter	15 $\mu$ m $\pm$ 3
Tensile strength	$\geq$ 1200MPa
Elastic modulus	$\geq$ 35MPa
Elongation at break	6-11%
Hot water resistance	$\geq$ 98 $^{\circ}$ C
Dry heat softening point	$\geq$ 216 $^{\circ}$ C

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