



## Premix AR GLASS FIBER



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PREMIX AR Glass Fiber is a high performance fiber developed to reduce micro shrinkage and cracking during the curing of concrete and improves the strength characteristic of cohesiveness and surface quality of concrete, available in 6mm/12mm/20mm length for plaster and concrete.

PREMIX AR Glass Fibers are bundled fibers that are designed specifically for use in concrete. They are manufactured from a specially formulated glass composition with an optimum level of Zirconia (ZrO<sub>2</sub>) to be suitable for use in concrete.

PREMIX AR Glass Fibers are particularly suitable for GFRC and other mortar and concrete reinforcement applications. They have high tensile strength and modulus, do not rust like steel and are easily incorporated into concrete mixes. Glass Fiber is an economical and quality product which can be alternative of crack control steel mesh which controls the formation of cracks.

### USES

- Various Types of Concrete, Shotcrete
- Cementitious overlays, stamped concrete, screeds, driveways, render mortars
- Industrial & Warehouse floors
- Patch repair on precast elements
- Water Retaining Structures

### ADVANTAGES

- Prepacked for immediate use
- Reduces micro shrinkage and cracking of concrete
- Replaces Crack Control Reinforcing mesh
- Reduces Water and chemical permeability.
- Increases the strength in bending and tension
- Does not rust, disperses uniformly throughout the mix
- Improves concrete freezing-thawing resistance
- Improves impact resistance of concrete & seismic performance
- Improves the durability of the concrete and aging resistance
- Improves the fire performance of concrete

### COMPLIANCE

PREMIX AR Glass fiber complies with ASTM C1666/C1666M



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### TECHNICAL DATA

PROPERTY	SPECIFICATION VALUE
Zirconia (ZrO <sub>2</sub> ) content	9 % minimum
Density	2.868 ± 0.3 g/cm <sup>3</sup>
Tensile strength	800 Mpa to 1000 Mpa
Filament diameter	8 to 30 microns
Roving tex	± 10 % from nominal
Cut length	± 3 mm from nominal
End count	± 20 % from nominal
Loss on ignition (combustible matter)	± 20% of the nominal value +0.3 % whichever is greater subject to upper limit of 3% by weight
Strength retention	Category A 250 Mpa Category B 350 Mpa The declared value shall be the characteristic (5 % fractile) strength retention

### DESIGN CRITERIA

PREMIX AR Glass Fiber is a high quality, fiber in compliance with ASTM C1666/C1666M used as a secondary reinforcement and reduces the occurrence of plastic settlement cracking whilst enhancing the surface properties and durability, abrasion and integrity. It replaces crack control wire mesh reinforcement.

### DOSAGE

PREMIX AR Glass Fiber is ready to use at 0.9 kg/m<sup>3</sup> of the mortar or concrete. For shortcrete works refer to PREMIX Technical Department for specific dosage recommendations.

### APPLICATION

Concrete placing standard placement procedures for concrete should be followed. Due to fiber efficiency, minor mix design modifications may be required depending on the application. PREMIX AR Glass Fiber is added to the mixer before, during or after batching the other concrete materials. Mixing time of at least 5 minutes at nominal speed is required.

### COMPATIBILITY

PREMIX AR Glass Fiber is compatible with all commonly used concrete admixtures and performance enhancing chemicals.

### PACKAGING & COVERAGE PACK SIZE

PREMIX AR Glass Fiber 6mm/12mm  
90 gram packet for 50 Kg Cement Bag

PREMIX AR Glass Fiber 12mm/20mm  
0.9 Kg bag for one cubic meter of concrete

### HEALTH & SAFETY

PREMIX AR Glass Fiber is non-flammable and non-hazardous. Refer to Material Safety Data Sheet for further information.

### SHELF LIFE & STORAGE

Original sealed bag of PREMIX AR Glass Fiber has a shelf life of 12 months provided it is stored clear of ground in a dry and shaded place below 35°C.



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