ECA POLYFIBER

POLYPROPYLENE FIBER

DESCRIPTION

ECA POLYFIBER is a high performance micro polypropylene fiber developed as a crack controlling additive for cementitious materials and cementitious mixed which exhibit a maximum aggregate size greater than 5 mm. designated by its fiber length 12 mm for concrete. It is used to inhibit the formation of small cracks which can occur through plastic shrinkage, premature drying and early thermal changes in order to provide utilization of the intrinsic properties of the hardened cementitious material.

USES

ECA POLYFIBER is utilized for:

- Concrete reinforcement
- Shotcrete/Gunite
- Mortar reinforcement
- Asphalt reinforcement
- Soil stabilization
- Roofing materials
- Filtration systems and thermal/sound insulation

ADVANTAGES

- Inhibits intrinsic cracking in concrete
- Disperses uniformly throughout the mix
- Improves finishing characteristics
- Improves concrete durability
- Increases impact and abrasion resistance
- Rustproof
- Impervious to alkali attacks
- Decreases construction time and labor
- Reduces risk of subsequent damage
- enhances strength, durability, crack resistance, bond, workability and resistance
- while providing reinforcement and improving overall performance

TYPICAL PROPERTIES	
Appearance	White Colour
Material	virgin copolymer/polypropylene
Form	Monofilament Fiber
Specific Gravity@20°C	0.91 g/cm³ ± 0.02
Air Entrainment	Less than 2% at Normal Dosages
Chloride Content	Nil
Alkali Content	Nil
Sulphate Content	Nil
Constituents	Polypropylene C3H6
Fiber Length	12 mm
Fiber Thickness	35 µm (2 denier)
Acid/Alkali Resistance	Excellent
Tensile Strength	450 - 560 MPa

COMPATIBILITY

With cements and other admixtures: ECA POLYFIBER can be used with all types of cement and is compatible with other admixtures. For optimum dispersion results, first introduce the sand into the site drum mixer, followed by ECA POLYFIBER. After mixing for 2-4 minutes, add the cement and the required quantity of water and continue mixing to obtain a homogeneous mix.

MIXING

ECA POLYFIBER is supplied ready for use and in measured quantities for addition to the concrete mix either at the batching plant or on site.

ADDITION RATES

The performance of ECA POLYFIBER is best assessed after preliminary trials in the laboratory, or on site using the actual mix constituents under consideration to determine the effect on concrete properties. As a guide to trials, Typical dosage is 0.6 kg/m^3 and depending on the application.

EFFECTS OF OVERDOSING

Overdosing of ECA POLYFIBER will generally produce a reduction in workability and an increase in the cohesiveness of the mix.

PACKAGING

ECA POLYFIBER is supplied in 3 Kg bags (5 Units each is 600 g) concrete dispersible bags.

STORAGE

ECA POLYFIBER should be stored in a dry, well-ventilated area away from direct sunlight, extreme temperature fluctuations, chemicals and contaminants, ensuring the packaging is tightly sealed.

The shelf life of ECA POLYFIBER is 12 months from the date of production.

HEALTH AND SAFETY

For more information, please check the Material Safety Data Sheet.

CONTACT

Al-Faiha for Engineering Products is the exclusive licensee manufacturer for ECA.

For more information, please contact us at techsupport@alfaihaengineering.com.

DISCLAIMER

ECA aims to ensure the accuracy of information and recommendations in the product literature. However, due to variations in materials, substrates, and site conditions, and without control over product application, storage, weather, and usage conditions, ECA cannot be held liable for any resulting issues.