

RECRON[®] 3S FIBRES FOR CONCRETE

PRODUCT DATA SHEET

Recron[®] 3s Fibres are Engineered Micro Fibres with a unique "Triangular" Cross-section, used in Secondary Reinforcement of Concrete. It complements Structural Steel in enhancing Concrete's resistance to Shrinkage Cracking and improves mechanical properties such as Flexural / Split Tensile and Transverse Strengths of Concrete along with the desired improvement in Abrasion and Impact Strengths.

Recron[®] 3s Fibres are manufactured in an ISO 9001:2000 facility for use in Concrete as a "Secondary Reinforcement" at a rate of dosage varying from 0.1% to 0.4% by volume (0.9Kgs/Cu.M – 3.60Kgs/Cu.M). Fibres comply with ASTM C 1116, Type 111 Fibre Reinforced Concrete.

FEATURES & BENEFITS

- Improves Resistance to Plastic & Drying Shrinkage Cracking
- Inhibits growth of Cracks-bridges Micro-Cracks and provides stability to Concrete
- Improves Flexural Toughness / Increases Split Tensile Strength
- Enhances Abrasion Resistance & increases Energy Absorption of Concrete thereby improving Impact Resistance
- Acts as a Pumping aid in making Concrete more homogenous
- Reduces Surface Water Absorption / Permeability in Concrete
- Improves Durability and enhances Longevity of Concrete/Structure



Triangular Crosssection

Sr. No.	Properties	Units	POLYESTER	POLYPROPYLENE	Remarks
1.	Shape		Triangular	Triangular	
2.	Cut Length	mm	3 / 4.8 / 6 / 12 / 18 / 24	3 / 4.8 / 6 / 12 / 18 / 24	+/- 1mm Project specific customized lengths can be produced on request
3.	Effective Diameter	microns	20-40	25-40	
4.	Specific Gravity		1.34-1.39	0.90-0.91	
5.	Melting Point	Deg. C	250-265	160-165	
6.	Tensile Strength	Gpd	4-6 *	4-6 *	*Estimated tensile strength In Mpa 4-6 *Polyester 480-730 Polypropylene 320-490
7.	Elongation	%	20-60	60-90	Initial Modulus
8.	Young's Modulus	Mpa	> 5000	> 4000	Tests done as per AC
9.	Alkaline Stability		Very Good	Very Good	32 standards

*Dosage rates are Project and Application specific and shall be provided on request.

PRIMARY APPLICATIONS

Floorings / Grade Slabs
Foundations / Retaining Walls
Shotcrete

Pavement quality Concrete
Roof Slabs
Bridge Decks/Overlays

Parking Slabs
Water Retaining Structures

APPLICATION RATE

The minimum application rate is 0.90Kgs/Cu.M to achieve desired results and specific to a particular application area. For application specific dosages, please contact our representative for guidance.

COMPATIBILITY

Recron® 3s Fibres are compatible with all commonly used admixtures in Concrete.

PACKAGING

Recron® 3s Fibres are available in 125 Gms, 450 Gms, 600 Gms, 900 Gms and 1.35 Kgs plastic pouches. They are packed in cartons and palletized for protection during transportation.

REFERENCE DOCUMENTS

ASTM C1116 Standard Specification for Fibre Reinforced Concrete

IS:456-2000 Guidelines for Concrete-Amendment Aug. '2007

IRC SP 76:2008

IRC15-2011

IRC 44:2008

ASTM C1399 Standard Test Method for obtaining Average Residual Strength of Fibre Reinforced Concrete