

Pro Macrofiber

Macro Polypropylene Fibers Additives for Concrete Reinforcement

Description	<p>Pro Macrofiber is a macrofiber mono filament fibers are a three-dimensional concrete reinforcing system manufactured from 100% virgin Co-polymer (poly propylene) with high density and resistance. It is macrofiber with conveying wave shape</p> <p>Pro Macrofiber improve all major properties of concrete and reduce concrete cracks due to shrinkage by up to 99.5 % compared to standard concrete.</p> <p>Standards: Complies with ASTM C-1116 Type III, ASTM D-7 508, ASTM C -1609, E N 14 889 Part II Type II, EN 14651, EN 12350, ISO 6892, UNI 11309/1,2</p>
Where to use	<p>It is used as an alternative to steel wire mesh or crack control purposes, to reduce plastic shrinkage cracks and plastic settlement and to enhance the surface properties as erosion, impact. Additionally, it controls thermal cracking in plain concrete slabs.</p> <p>It is used for:</p> <ul style="list-style-type: none"> • Industrial flooring, • Subways and Cellars. • Ideal for warehouse, factory units. • Hard standings and roads. • Precast Elements. • Bridge decks, Foundations and Tunnels. • Coastal and Water structure
Advantages	<p>It provides the following advantage:</p> <ul style="list-style-type: none"> • Gives the composite certain ductility. • Good bond between the hardened cement paste matrix. • Increase crack tensile strength by 17 %. • Increase flexural strength by 6 - 8 %. • Improve water and chemical resistance. • Enhances durability of concrete. • Safe and easy to use. • Micro crack reduction 100 %. • Increase friction resistance. • Easily finished.
Properties	
Material	Mono filament polymeric fiber.
Fiber Shape	Wave Shape
Fiber diameter	0.48 -0.5 mm
Tensile Strength	560 - 650 N/mm ²
Density	0.91 gm / cm ³
Elastic modulus	7.2 - 8.5 GPa
Melting point	165 °C
Chemical resistance	Excellent
Aspect Ratio	112
Length	54 mm

How to Use	<p>Pro Macrofiber is introduced into concrete during batching or after loading into concrete mixing trucks.</p> <p>When dry mixing, the fines should be added first, followed by the fibers and the coarse aggregates.</p> <p>When wet mixing, the consistency of the matrix should be neither too stiff not too fluid, to ensure that the fibers are immediately dispersed and intermixed.</p> <p>This may be achieved by premixing with half of the mixing water, introducing the fibers and mixing, then adding the remainder of the water.</p> <p>Water reduces admix can be added to improve workability.</p>
Curing	<p>PROKEM recommends the concrete be cured for 24 hours after finishing operations are complete by using Kemcure curing compound. spray applied surface contact curing membranes should be used in all cases.</p>
Job site Mixing	<p>Add the Pro Macrofiber to the concrete truck and let drum rotate for 5 minutes before discharge.</p>
Compatibility	<p>Water reducing admixtures can be used in the same concrete batch with Pro Macrofiber.</p>
Finishing	<p>Pro Macrofiber reinforced concrete can be finished by any finishing technique.</p> <p>Pro Macrofiber do not affect the finishing characteristics of concrete.</p> <p>Pro Macrofiber are compatible with power troweled, hand troweled, colored, stamped, dry shake and broom.</p>
Cleaning	<p>Spillage of Pro Macrofiber with concrete can be removed with water.</p>
Theoretical Dosage Rate	<p>Standard recommended dosage rate of 2 – 5 Kg/m³ of concrete.</p>
Packaging	<p>Available in 5 Kg Sack</p>
Shelf life & Storage	<p>Unlimited, it must be stored in dry conditions.</p>
Health and Safety	<ul style="list-style-type: none"> • Pro Macrofiber is non-toxic. • Use gloves to avoid contact with skin. • If skin comes in contact, wash immediately with soap and water. • Do not use solvents. • Eye contamination must be immediately washed with water, then seek medical treatment.
Additional Information	<p>PROKEM provides the construction industry with a comprehensive range of construction chemicals and specialty products answering the queries of modern engineers for trouble free durable structure.</p> <p>PROKEM designs tailor made products should there be critical application that requires specific properties rather than our main range. For our customer's satisfaction.</p> <p>PROKEM reserves the right to change the properties of its products.</p> <p>All orders are accepted subject to our current term of sale & delivery.</p> <p>Users must always refer to the most recent issue of the local product data sheet for the product concerned, copies of which will be supplied on request.</p> <p>PROKEM extends technical services to include after sales support to assist users in a proper handling of our products.</p> <p>Environmental Considerations:</p> <p>Pro Macrofiber is environmentally safe.</p>