

# Profiber P-P

Polypropylene Fibers (PPF) And Micro Crack Preventer

|                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|---------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Description         | <p><b>Profiber P- P</b> polypropylene mono filament fibers are a three-dimensional concrete reinforcing system manufactured from 100% virgin homo polymer polypropylene. The cross-section of the fiber has a circular hair-like design. It improves 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 C1116</p>                                                                                                                                           |
| Where to use        | <p><b>Profiber P- P</b> 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><b>Profiber P- P</b> used for:</p> <ul style="list-style-type: none"> <li>• Industrial flooring,</li> <li>• Subways and Cellars.</li> <li>• Ideal for warehouse, factory units.</li> <li>• Hard standings and roads.</li> <li>• Bridge decks and Foundations</li> </ul>       |
| Advantages          | <p><b>Profiber P- P</b> provides the following advantage:</p> <ul style="list-style-type: none"> <li>• Gives the composite certain ductility.</li> <li>• Good bond between the hardened cement paste matrix.</li> <li>• Increase crack tensile strength by 17 %.</li> <li>• Increase flexural strength by 6 - 8 %.</li> <li>• Improve water and chemical resistance.</li> <li>• Enhances durability of concrete.</li> <li>• Safe and easy to use.</li> <li>• Micro crack reduction 100 %.</li> <li>• Increase friction resistance.</li> <li>• Easily finished.</li> </ul> |
| Properties          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Material            | Mono filament polypropylene fiber                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Fiber cross section | Round                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Fiber diameter      | 39 µm                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Fiber distribution  | Excellent                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Density             | 0.91 g / cm <sup>3</sup>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Strength            | 275 N / mm                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Mixing time         | 4 – 5 minutes                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Chemical resistance | Excellent                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Alkali resistance   | Excellent                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Cut length          | 12 , 18 mm(Concrete) & 6 mm (Plaster)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |

|                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|-------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Direction for Use       | <ul style="list-style-type: none"> <li>• The <b>Profiber P-P</b> are introduced into concrete during batching or after loading into concrete mixing trucks.</li> <li>• When dry mixing, the fines should be added first, followed by the fibers and the coarse aggregates.</li> <li>• When wet mixing, the consistency of the matrix should be neither too stiff nor too fluid, to ensure that the fibers are immediately dispersed and intermixed. This may be achieved by premixing with half of the mixing water, introducing the fibers and mixing, then adding the remainder of the water.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                      |
| Curing                  | <b>PROKEM</b> recommends the concrete be cured for 24 hours after finishing operations are complete by using <b>Kemcure</b> curing compound. spray applied surface contact curing membranes should be used in all cases.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Job site Mixing         | <ul style="list-style-type: none"> <li>• Add the <b>Profiber P-P</b> to the concrete truck and let drum rotate for 7 minutes before discharge.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Compatibility           | <ul style="list-style-type: none"> <li>• All admixtures may be used in the same concrete batch with <b>Profiber P-P</b>.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Finishing               | <ul style="list-style-type: none"> <li>• <b>Profiber P-P</b> reinforced concrete can be finished by any finishing technique.</li> <li>• <b>Profiber P-P</b> do not affect the finishing characteristics of concrete.</li> <li>• <b>Profiber P-P</b> are compatible with power troweled, hand troweled, colored, stamped dry shake and broom.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Cleaning                | Spillage of <b>Profiber P-P</b> with concrete can be removed with water.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Theoretical Dosage Rate | Standard recommended dosage rate of <b>Profiber P-P</b> is 0.90 Kg/m <sup>3</sup> of concrete.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Packaging               | Available in 0.90 Kg.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Shelf life & Storage    | Unlimited, it must be stored in dry conditions.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Health and Safety       | <ul style="list-style-type: none"> <li>• <b>Profiber P-P</b> is non-toxic.</li> <li>• Use gloves to avoid contact with skin.</li> <li>• If skin comes in contact, wash immediately with soap and water.</li> <li>• Do not use solvents.</li> <li>• Eye contamination must be immediately washed with water, then seek medical</li> <li>• Treatment.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Additional Information  | <p><b>PROKEM</b> 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><b>PROKEM</b> 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><b>PROKEM</b> reserves the right to change the properties of its products.</p> <p>All orders are accepted subject to our current term of sale &amp; 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><b>PROKEM</b> extends technical services to include after sales support to assist users in a proper handling of our products.</p> <p><b>Environmental Considerations:</b><br/> <b>Profiber P-P</b> is environmentally safe.</p> |