

Polypropylene Fibre Datasheet

November 2018

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6mm/12mm **Polypropylene Fibre** is a high- performance monofilament polypropylene fibre developed as a crack controlling additive for concrete and mortar. It is supplied ready for use, and in measured quantities for addition to the concrete mix whether at the batching plant or on site.

Technical Data

Colour	White
Alkali content	Nil
Sulphate content	Nil
Air entrainment	Air content of concrete will not be significantly increased
Chloride content	Nil
Fibre diameter	± 18 microns
Fibre length	6mm/12mm
Estimated usage rate	1kg per cubic meter
Youngs modulus	3500 to 3900MPa
Anticipated tensile strength	≤ 350MPa

Specifying

Polypropylene Fibre is used to inhibit the formation of small cracks which can occur through plastic shrinkage and settlement, premature drying and early thermal changes, in order to provide utilisation of the intrinsic properties of the hardened cementitious material. Specifically designed for crack control in cementitious materials covering areas such as ready -mix concrete, precast concrete, conventional shotcrete, screeds rendering mortars, etc. Principle uses of fibre concrete include: concrete slabs, pavements, driveways, imprinted concrete, curbs, pipes, overlays patch repair, micro-silica concrete, thin section walling, water retaining structures, marine concrete, heavy industrial floors etc.

Benefits

- Good substitute for wire mesh in factory and warehouse floors.
- Inhibits intrinsic cracking in concrete.
- Disperses uniformly throughout the mix if done properly.
- Improves finishing characteristics.
- Improves concrete durability.
- Increases impact and abrasion resistance.
- Rustproof.
- Impervious to alkali attack.
- Decreases construction time and labour.
- Helps retain moisture for better curing.
- Reduced risk of subsequent damage.
- Improves fire resistance – reduces the incidence of explosive spalling during heating.

Limitations

Overdosing of **Polypropylene Fibre** will generally produce a reduction in workability and an increase in the cohesiveness of the mix.

Cemcrete provides a comprehensive technical service based on over 4 decades of experience in the field of surface applications and cement technology. Cemcrete believes, to the best of its knowledge, that the information contained herein is true and accurate at the date of issuance and is subject to change without prior notice. For further clarification of these instructions, contact Cemcrete.

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Application Method

The **Polypropylene Fibres** should be mixed with dry cement using a plaster/concrete mechanical mixer to achieve an even dispersion rate. This can be checked by holding some of the mixed material in one's hand and holding it to the light. The fibres should show individually sticking out from the cement evenly and should be lump free. Once this has been achieved proceed to mix the fibre reinforced cement with water and aggregates as per normal

Compatibility

Can be used with all types of cement and is compatible with other admixtures.

Storage

Should be stored in dry conditions.

Packaging

Polypropylene Fibre 6mm/12mm is available in 1kg bags.

Manufacturer's Warranty

Cemcrete warrants that the products manufactured by it shall be free from material defects and will be consistent with its normal high quality. Should any of the products be proven defective, the liability to Cemcrete shall be limited to replacement of the product ex-factory. Cemcrete makes no warranty as to merchantability or fitness for a particular purpose and this warranty is in lieu of all other warranties expressed or implied. The user shall determine the suitability of the product for his intended use and assume all risks and liability in connection therewith.

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