

# Product Information

## PP Fibers - Monofire

### Product Description:

PP Fibers - Monofire are ultrafine polypropylene synthetic monofilament microfibers that have been specifically designed to reduce spalling. The fibers start to melt as approximately 150 °C, this melt provides channels within the concrete which prevents spalling. The fibers increase the durability, strength, cracking resistance of the concrete by effective energy absorption and load distribution of the concrete. Synthetic fibers are homogenous, light weight, non-magnetic and corrosion resistant unlike steel fiber and wire mesh. Polypropylene fibers have high thermal and chemical stability.

### Applications:

PP Fibers - Monofire are used as an additive in shotcrete and concrete to increase its strength, cracking resistance and reduce spalling. It can be used in residential concretes, refractory applications, logistic projects and tunnel linings.

### Chemical Formula:

$(C_3H_6)_n$

### CAS No. :

9003-07-0

### Specifications:

Parameters (units)	Specifications
Color	Colorless and clear
Fiber length (mm)	6 ± 1
Thickness (µm)	< 20
Elongation (%)	20 - 25
Specific weight, approx. (g/cm <sup>3</sup> )	0.91
Tenacity (g/D)	6.5 - 7.0
Number of filaments (no./kg)	≥ 120 million
Surface area, approx. (m <sup>2</sup> /kg)	140

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## Dosing:

Doses of synthetic macro fibers vary between 1.5 - 3 kg/m<sup>3</sup> depending on desired engineering requirements. Homogeneous mixture is obtained by the addition of PP Fibers - Monofire to the aggregate band at the concrete batching plant or by mixing in a high-speed concrete mixer for 5 - 6 minutes. It is recommended to use plasticizer additives in high doses.

## Packaging:

Material is available in 5 kg bags. Further packaging options may be available upon enquiry.

## Storage:

Product should be stored in a dry place away from direct sunlight in sealed, original packaging. Should not be stored near flammable and oxidizing material.

## Safety:

For further safety information refer to product SDS available from your Bisley International contact.

Disclaimer: This document is for information purpose only. Customers are responsible for testing and conforming the suitability of this product in their application. To the extent permitted by law, no warranty as to merchantability or fitness of purpose, expressed or implied, is made.

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