Technical Data Sheet

POLYPROPYLENE FIBERS
50µm Monofilament

General Description: Polypropylene is a manufactured fiber in which the fiber-forming substance is a long-chain synthetic polymer composed of at least 85% by weight of propylene units. Our 50µm monofilament is a very fine fiber that is specially suited to reduce shrinkage and prevent crack formation in cementitous materials.

Standard Filament Size: 50µm
Standard Cut Lengths: 3mm, 6mm, 12mm, 18mm
Tensile Strength: ≥152 MPa
Elastic Modulus: ≥1.1 GPa
Specific Gravity: 0.91 g/cm³

Average Moisture Regain of Polypropylene: <0.1%

Effects of Heat: Softens at ~160°C /~320°F. Melts at ~168°C /~335°F. Decomposes at ~288°C /~550°F. In concrete, with the development of intense heat, the fibers will melt and create small capillary cavities in the concrete, which can delay explosive fragmentation.

Chemical Resistance: Good resistance to acids and alkalis. Physically resistant to chemicals in concrete.

Performance Characteristics: The fiber has high dispersibility in the matrix, and the fineness of the fibers results in a high fiber frequency and increased surface area. This provides increased tensile strength and helps to evenly distribute early shrinkage tension, reducing the formation of cracks and weakness. The 50µm product is especially well suited for use in dry mixes.

Packaging: Standard packaging is corrugated boxes with polyethylene liners. Other packaging available upon request.

The above information is provided to describe typical values and does not constitute a product specification.