

Technical Data Sheet

POLYPROPYLENE FIBERS for Refractory Applications Product Code Prefix: PPREF-025NRR

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. This refractory monofilament is a very fine fiber that is specially suited for use in fireproof materials and for casting purposes at high temperatures.

Standard Filament Size: 2.5 denier per filament (dpf)

Standard Cut Length: 6mm
Other lengths may be available by special order.

Specific Gravity: 0.91 g/cm³

Maximum Load: ≥300 MPa

Elongation: 130-180%

Average Moisture Absorption: <0.1%

Effect of Heat: Softens at ~285-300°F / 140-150°C. Melts at ~330°F / 165°C. In refractory materials, with the development of intense heat, the fibers will melt and create small capillary cavities, which can prevent explosive fragmentation.

Performance Characteristics: The fiber has high dispersibility in the matrix, and the fineness of the fibers results in a high fiber frequency. This provides optimal stress distribution and stronger cohesion of the matrix, thereby reducing the formation of cracks and weakness. Porosity is created during the curing process as the fibers melt away, allowing moisture and steam to escape.

Other Characteristics: One of the lightest of all fibers. Not attacked by microorganisms, mold or mildew. Substantial resistance to acids and alkalis and most organic chemicals. Low thermal conductivity. Very little tendency to acquire static charge.

Packaging: Fiber is packaged in corrugated boxes with polyethylene liners. Custom packaging available upon request.

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