



POLYBENZIMIDAZOLE (PBI)

FIBER DATA

Thermal Performance

- ▶ Low thermal conductivity
- ▶ Will not burn, smolder, or melt
- ▶ Dimensional stability at high temperatures
- ▶ 1000°F service temperature
- ▶ High strength retention at high temperature
- ▶ Resistant to sparks and welding spatter
- ▶ Superior resistance to abrasion
- ▶ Resistant to most chemicals
- ▶ Excellent flexibility up to 1000°F
- ▶ Very low smoke emission
- ▶ Low heat release

Chemical Performance

- ▶ Resistant to most acids
- ▶ Resistant to most bases
- ▶ Resistant to steam
- ▶ Resistant to solvents
- ▶ Resistant to fuel

Textile Performance

- ▶ High moisture regain (for comfort)
- ▶ Superior insulation
- ▶ High modulus
- ▶ Resistant to pilling

PBI was developed initially for the United States NASA Space Program. It is used in a variety of textile and industrial applications. PBI's use in military flight suits continues a long tradition that began with the suits for the U.S. astronauts in the 1960's.

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