TechData@readyplastics.com
774 489 6842

PEI

Polyetherimide (PEI), 30% Glass-Fiber Reinforced

ASTM D5205 | FAR 25.853 (FST) | USP CLASS VI (MEDICAL GRADES)

An amber-clear engineering plastic that holds its shape.

Polyetherimide (PEI) is an amber-tinted amorphous thermoplastic that combines high heat resistance, inherent flame retardance, and excellent dimensional stability. It is the engineering plastic of choice when performance under continuous heat must be paired with strict FST and FDA compliance. This grade is reinforced with chopped glass fiber for higher stiffness, strength, and dimensional stability at temperature.

APPLICATIONS

- Aerospace interior brackets, ductwork, and trays
- Sterilizable medical and dental instruments
- Semiconductor process trays and carriers
- Electrical insulators, connectors, and chip carriers
- Food-service equipment requiring repeated steam cleaning

STANDARD COLORS

Amber Opaque

GENERAL

Density ISO 1183	1.51 g/cm³ 0.054 lb/in³
Water absorption 24h / 96h (23°C) · ISO	0.04 / %

MECHANICAL

Tensile strength 5mm/min · ISO	135 MPa 19,500 psi
Tensile modulus 1mm/min · ISO	5300 MPa 768,000 psi
Elongation at yield 5mm/min · ISO	4 %
Elongation at break 50mm/min · ISO	4 %
Flexural strength 2mm/min, 10 N · ISO	195 MPa 28,000 psi
Flexural modulus 2mm/min, 10 N · ISO	5500 MPa 797,000 psi
Impact strength (Charpy) max. 7,5J · ISO	51 kJ/m² 24 ft·lbf/in²
Ball indentation hardness ISO	325 MPa 47,000 psi

OPERATING ENVIRONMENT

Flammability (UL 94) corresponding to · IEC	V0
Glass transition temp. ISO	213 °C 415 °F
Service temperature short term	200 °C 390 °F
Service temperature long term	170 °C 335 °F

ELECTRICAL

Surface resistivity	10^{14} Ω
Volume resistivity	10^{14} Ω·cm