

Aerospace-Grade Flame-Retardant Filament

Z-PEI 9085 is a durable, aerospace-grade polymer with strength-to-weight ratio comparable to aluminum 6061. This filament consists of polyetherimide with a polycarbonate copolymer blend. Z-PEI 9085 exhibits excellent thermal properties and retains its properties in temperatures reaching 170° C . The most notable property of Z-PEI 9085 is very low FST (Flame, Smoke, Toxicity). The material has a UL 94 V-0 flammability rating which makes it perfect for printing flame-retardant components.



Applications

- industrial parts and tools,
- aerospace interiors,
- ductwork,
- flame-retardant components.

Mechanical Properties	Metric	Imperial	Test Method
Tensile Strength	54 MPa	7830 psi	ISO 527
Tensile Modulus	2050 MPa	297 ksi	ISO 527
Tensile Elongation	3%	3%	ISO 527
Flexural Strength	90 MPa	13100 psi	ISO 178
Flexural Modulus	2170 MPa	315 ksi	ISO 178
Thermal Properties	Metric	Imperial	Test Method
Glass Transition Temperature	186° C	367° F	DSC
Deflection Temperature at 0.45 MPa (66psi)	158° C	316° F	ISO 75
Fire Testing*	Metric	Imperial	Test Method
Flamability Rating (*Base Resin)	V-0 @1.5mm	V-0 @1.5mm	UL 94
Other Properties	Metric	Imperial	Test Method
Density	1.34 g/cm ³	11.2 lb/gal	ISO 1183

The data presented in this document are intended for information and comparison purposes only. They should not be used for project specifications or its quality evaluation. The material's actual properties depend on the printing process conditions, the design structure and its purpose, test conditions, etc.

Product specifications are subject to change without notice.

Each user is responsible for complying with product safety standards, its intended use as well as the law and waste disposal (and recycling) rules for electrical and electronic equipment. Zortrax does not make any express or implied warranties, including but not limited to implied warranties of merchantability or fitness for a particular purpose.

The Zortrax logo consists of the word "zortrax" in a bold, lowercase, sans-serif font. The letter "z" is significantly larger and more stylized than the other letters, with a thick vertical stroke and a horizontal top bar that extends to the left.

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