



3D Printing Solution for high performance materials

PEI 9085 Technical Data Sheet (TDS)

PEI 9085 is a high-performance material that have excellent thermal properties, exceptional dimensional stability, good chemical resistance, and inherent flame retardancy.

IEMAI 3D high performance PEI 9085 filament is based on FFF/FDM technology, with a diameter of 1.75 mm, 370°C -390 °C printing temperature,130°C -150°C hotbed temperature and 90°C -150°C chamber temperature which allow it to have excellent inter-layer adhesion, which greatly improve the strength, durability, and shock resistance of the prototype.

PEI 9085 has a translucent colour of amber and it is widely used in application such as medical, electrical/electronic, automotive, and aerospace industries.

Mechanical Properties	Metric	Imperial	Test Method
Tensile Strength	54MPa	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 527
Flexural Modulus	2170 MPa	315 ksi	ISO 527

Thermal Properties	Metric	Imperial	Test Method
Glass Transition Temperature	186° C	367 ° F	DSC
Deflection Temperature at 0.45MPa (66psi)	158 C	316 ° F	ISO 75

Fire Testing*	Metric	Imperial	Test Method
Flammability Rating (*Base Resin)	V-0@1.5mm	V-0@1.5mm	UL 94

Other Properties	Metric	Imperial	Test Method
Density	1.34g/cm ³	11.2IB/gal	ISO 1183

Print Recommendation	
Nozzle Temperature	360-390°C
Bed Temperature	130-150°C



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Print Speed	30-40 mm/s
Chamber Temperature	90-150 °C
Cooling Temperature	OFF