



G-PAEK™ 1460GF

Product Details: Ultra high performance thermoplastic polymer, 60% glass fiber reinforced in Polyether Ketone, semi-crystalline granules suitable for injection molding, easy flow, Beige in color.

Application Areas: Suitable for high temperature applications, where higher strength in load-bearing applications is required. Chemically resistant to aggressive environments, suitable for sterilization for medical and food contact applications.

Typical Properties:

PROPERTY	TEST METHOD/CONDITIONS	UNIT	G-PAEK™ 1460GF
General Properties			
Density	23°C	g/cc	1.87
Water Absorption	ASTM D 570-98	%	0.03
Rockwell Hardness	ASTM D 785/M Scale		101
Shore D Hardness	ASTM D 2240-05		94
Mold Shrinkage (430°C nozzle, 220°C Mold)	Along Flow	%	0.30
	Across Flow	%	0.84
Spiral Flow (430°C nozzle, 220°C Mold)	ASTM D 3123	mm	270

Thermal Properties			
Glass Transition Temperature(Tg)	ASTM D 3418	°C	152
Melting Point (Tm)	ASTM D 3418	°C	372
Heat Deflection Temperature (HDT)	ASTM D 648 /1.8 MPa	°C	359
Continuous Use Temperature (Expected)	UL 746B	°C	280

Mechanical Properties at 23°C			
Tensile Strength	ASTM D 638	MPa	187
Tensile Modulus	ASTM D 638	GPa	28.1
Elongation at Break	ASTM D 638	%	2-3
Flexural Strength	ASTM D 790	MPa	212
Flexural Modulus	ASTM D 790	GPa	26
Izod Impact Strength(Notched)	ASTM D 256	J/m	75
Izod Impact Strength(Un-notched)	ASTM D 256	J/m	650



PROPERTY	TEST METHOD/CONDITIONS	UNIT	G-PAEK™ 1460GF
Electrical Properties			
Surface Resistivity	ASTM D 257	Ω	10 ¹⁶
Volume Resistivity	ASTM D 257	Ωcm ⁻¹	10 ¹⁶

Fire Properties			
Flammability	UL 94/0.8 mm	-	V-0

Recommended Processing Conditions	
Drying Temperature/Time	4-6 hrs at 150°C
Temperature Settings	400-430°C
Nozzle Temperature	430°C
Hopper/ Throat Temperature	60-80°C
Mold Temperature	200-220°C

Nominal Granule Size
• Dimensions, length 2.0 – 4.0 mm, diameter 2.0 – 3.5 mm
• No longs greater than 8.0 mm
• Granules of uniform cut and color

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