



G-PAEK™ 1215GF

Product Details: Ultra High Performance Thermoplastic polymer, 15% glass fiber reinforced in Polyether Ketone, semi-crystalline granules suitable for injection molding, easy flow, light beige in color and also custom colors in Blue and Black.

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

Typical Properties:

PROPERTY	TEST METHOD/CONDITIONS	UNIT	G-PAEK™ 1215GF
General Properties			
Density	23°C	g/cc	1.40
Water Absorption	ASTM D 570-98	%	0.08
Rockwell Hardness	ASTM D 785/M Scale		100
Shore D Hardness	ASTM D 2240-05		91
Mold Shrinkage (410°C nozzle, 220°C Mold)	Along Flow	%	1.0
	Across Flow	%	1.3

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	348
Continuous Use Temperature (Expected)	UL 746B	°C	280

Mechanical Properties at 23°C			
Tensile Strength	ASTM D 638	MPa	125
Tensile Modulus	ASTM D 638	GPa	7.8
Elongation at Break	ASTM D 638	%	2.8
Flexural Strength	ASTM D 790	MPa	220
Flexural Modulus	ASTM D 790	MPa	7.7
Izod Impact Strength(Notched)	ASTM D 256	J/m	33
Izod Impact Strength(Un-notched)	ASTM D 256	J/m	400



PROPERTY	TEST METHOD/CONDITIONS	UNIT	G-PAEK™ 1215GF
Fire Properties			
Flammability	UL 94/0.8 mm	-	V-0
Recommended Processing Conditions			
Drying Temperature/Time	4-6 hrs at 150°C		
Temperature Settings	390-410°C		
Nozzle Temperature	410°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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