



G-PAEK™ 1230GF

Product Details: Ultra High Performance Thermoplastic material, 30% glass fiber reinforced in Poly Aryl Ether Ketone, semi-crystalline granules suitable for injection molding, standard flow, Beige in color.

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

Typical Properties:

PROPERTY	TEST METHOD/CONDITIONS	UNIT	G-PAEK™ 1230GF
General Properties			
Density	23°C	g/cc	1.50
Crystallinity	DSC	%	40
Water Absorption	24h, 23°C	%	0.05
Rockwell Hardness	ASTMD785/M Scale, 23°C		105
Shore D Hardness	23°C		90
Mold Shrinkage (410°C nozzle, 220°C Mold)	Along Flow	%	0.3
	Across Flow	%	1.0
Thermal Properties			
Glass Transition Temperature(Tg)	DSC/onset	°C	152-154
Melting Point (Tm)	DSC	°C	370-372
Heat Deflection Temperature (HDT)	1.8 MPa	°C	360
Mechanical Properties			
Tensile Strength	ASTMD 638/Break, 23°C	MPa	185
	ASTMD 638/ Break , 100°C	MPa	135
	ASTMD 638/Break, 150°C	MPa	100
	ASTMD 638/Break, 200°C	MPa	65
	ASTMD 638/Break, 250°C	MPa	50
	ASTMD 638/Break, -10°C	MPa	190
	ASTMD 638/Break, -50°C	MPa	205
Tensile Modulus	ASTMD 638/23°C	GPa	11.5
Elongation at Break	ASTMD 638/Break,23°C	%	2-3
Flexural Strength	ASTMD790/23°C	MPa	280
Flexural Modulus	ASTMD790/23°C	GPa	10.5
Izod Impact Strength(Notched)	ASTMD256/23°C	J/m	60
Izod Impact Strength(Un-notched)	ASTMD256/23°C	J/m	610



PROPERTY	TEST METHOD/CONDITIONS	UNIT	G-PAEK™ 1230GF
Rheological Properties			
CR Viscosity at 6 Min	Capillary Rheometer/@1000 s ⁻¹	Pa.s	-
Electrical Properties			
Dielectric Strength	ASTMD 149/ 3.2mm thickness	Kvmm ⁻¹	14
Surface Resistivity	ASTMD 257	Ω	10 ¹⁶
Volume Resistivity	ASTMD 257	Ωcm ⁻¹	10 ¹⁶
Arc Resistance	ASTMD 495/@ 500 Volts	Sec	160
CTI	ASTMD 3638	V/50 drops	140
Fire Properties			
Flammability	UL 94/0.8 mm	-	V-0
Recommended Processing Conditions			
Drying Temperature/Time	4-6 hrs at 150°C		
Temperature Settings	390-425°C		
Nozzle Temperature	425°C		
Hopper/ Throat Temperature	60-80°C		
Mold Temperature	200-220°C		

PROGRESS THROUGH INNOVATIVE PRODUCTS & SERVICES

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