



# G-PAEK™ 1230CF

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

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

## Typical Properties:

PROPERTY	TEST METHOD/CONDITIONS	UNIT	G-PAEK™ 1230CF
<b>General Properties</b>			
Density	23°C	g/cc	1.40
Crystallinity	DSC	%	40
Water Absorption	24h, 23°C	%	0.05
Rockwell Hardness	ASTMD785/M Scale, 23°C		108
Shore D Hardness	23°C		91
Mold Shrinkage (410°C nozzle, 220°C Mold)	Along Flow	%	0.11
	Across Flow	%	0.80
<b>Thermal Properties</b>			
Glass Transition Temperature(Tg)	DSC/onset	°C	152-154
Melting Point (Tm)	DSC	°C	370-372
Heat Deflection Temperature (HDT)	1.8 MPa	°C	368
<b>Mechanical Properties</b>			
Tensile Strength	ASTMD 638/Yield, 23°C	MPa	250
	ASTMD 638/Yield, 100°C	MPa	185
	ASTMD 638/Yield, 150°C	MPa	125
	ASTMD 638/Yield, 200°C	MPa	95
	ASTMD 638/Yield, 250°C	MPa	75
	ASTMD 638/Yield, -10°C	MPa	260
	ASTMD 638/Yield, -50°C	MPa	275
Tensile Modulus	ASTMD 638/23°C	GPa	22.6
Elongation at Break	ASTMD 638/Break,23°C	%	2
Flexural Strength	ASTMD790/23°C	MPa	360
Flexural Modulus	ASTMD790/23°C	GPa	22
Izod Impact Strength(Notched)	ASTMD256/23°C	J/m	50
Izod Impact Strength(Un-notched)	ASTMD256/23°C	J/m	No Break



PROPERTY	TEST METHOD/CONDITIONS	UNIT	G-PAEK™ 1230CF
<b>Rheological Properties</b>			
CR Viscosity at 6 Min	Capillary Rheometer/@1000 s <sup>-1</sup>	Pa.s	-
<b>Fire Properties</b>			
Flammability	UL 94/0.8 mm	-	V-0
<b>Recommended Processing Conditions</b>			
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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