



# GAZOLE™ 6430GF

**Product Details:** Ultra high performance thermoplastic polymer, 30% glass fiber reinforced in PBI PEK Blend, semi-crystalline granules suitable for injection molding as well as extrusion, easy flow, dark green in color.

**Application Areas:** Suitable for high temperature applications under extremely high load, Excellent wear resistance, suitable for semiconductor applications and plasma handling equipments.

## Typical Properties:

PROPERTY	TEST METHOD/CONDITIONS	UNIT	GAZOLE 6430GF
<b>General Properties</b>			
Density	23°C	g/cc	1.55
Water Absorption	ASTM D 570-98	%	0.24
Shore D Hardness	ASTM D 2240-05		95
Rockwell Harness	ASTM D 785	A	30
Mold Shrinkage (445°C nozzle, 220°C Mold)	Along Flow	%	0.20
	Across Flow	%	0.58
Spiral Flow (445°C nozzle, 220°C Mold)	ASTM D 3123	mm	45

<b>Thermal Properties</b>			
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	310
Continuous Use Temperature (Expected)	UL 746B	°C	300
Temperature of Initial (5%) Weight Loss in:			
Air	TGA	°C	577
Nitrogen	TGA	°C	570

<b>Mechanical Properties at 23°C</b>			
Tensile Strength	ASTM D 638	MPa	167
Tensile Modulus	ASTM D 638	GPa	13.5
Elongation at Break	ASTM D 638	%	2.7
Flexural Strength	ASTM D 790	MPa	282
Flexural Modulus	ASTM D 790	GPa	13.6
Izod Impact Strength(Notched)	ASTM D 256	J/m	45



PROPERTY	TEST METHOD/CONDITIONS	UNIT	GAZOLE 6430GF
<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	400-445°C
Nozzle Temperature	445°C
Hopper/ Throat Temperature	60-80°C
Mold Temperature	200-220°C
<b>Nominal Granule Size</b>	
<ul style="list-style-type: none"> <li>• Dimensions, length 2.0 – 4.0 mm, diameter 2.0 – 3.5 mm</li> <li>• No longs greater than 8.0 mm</li> <li>• Granules of uniform cut and color</li> </ul>	

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