

## Gharda Chemicals G-PAEK™ 1230GF Ultra High Performance PEK Polymer

Category : Polymer , Thermoplastic , Polyketone , Polyaryletherketone (PAEK), Glass Fiber Filled

### Material Notes:

**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 needed in load-bearing application. Chemically resistant to aggressive environments, suitable for sterilization for medical and food contact applications.

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_Gharda-Chemicals-G-PAEK-1230GF-Ultra-High-Performance-PEK-Polymer.php](http://www.lookpolymers.com/polymer_Gharda-Chemicals-G-PAEK-1230GF-Ultra-High-Performance-PEK-Polymer.php)

Physical Properties	Metric	English	Comments
Specific Gravity	1.50 g/cc	1.50 g/cc	
Water Absorption	0.050 % @Time 86400 sec	0.050 % @Time 24.0 hour	
Linear Mold Shrinkage, Flow	0.0030 cm/cm	0.0030 in/in	410°C nozzle, 220°C mold
Linear Mold Shrinkage, Transverse	0.010 cm/cm	0.010 in/in	410°C nozzle, 220°C mold
Crystallinity	40 %	40 %	DSC

Mechanical Properties	Metric	English	Comments
Hardness, Rockwell M	105	105	ASTM D785
Hardness, Shore D	90	90	
Tensile Strength at Break	50.0 MPa @Temperature 250 °C	7250 psi @Temperature 482 °F	ASTM D638
	65.0 MPa @Temperature 200 °C	9430 psi @Temperature 392 °F	ASTM D638
	100 MPa @Temperature 150 °C	14500 psi @Temperature 302 °F	ASTM D638
	135 MPa @Temperature 100 °C	19600 psi @Temperature 212 °F	ASTM D638
	185 MPa @Temperature 23.0 °C	26800 psi @Temperature 73.4 °F	ASTM D638
	190 MPa	27600 psi	ASTM D638

Mechanical Properties	@Temperature -10.0 °C Metric	@Temperature 14.0 °F English	Comments
	205 MPa	29700 psi	ASTM D638
	@Temperature -50.0 °C	@Temperature -58.0 °F	
Elongation at Break	2.0 - 3.0 %	2.0 - 3.0 %	ASTM D638
Tensile Modulus	11.5 GPa	1670 ksi	ASTM D638
Flexural Strength	280 MPa	40600 psi	ASTM D790
Flexural Modulus	10.5 GPa	1520 ksi	ASTM D790
Izod Impact, Notched	0.600 J/cm	1.12 ft-lb/in	ASTM D256
Izod Impact, Unnotched	6.10 J/cm	11.4 ft-lb/in	ASTM D256

Thermal Properties	Metric	English	Comments
Melting Point	370 - 372 °C	698 - 702 °F	DSC
Deflection Temperature at 1.8 MPa (264 psi)	360 °C	680 °F	
Glass Transition Temp, Tg	152 - 154 °C	306 - 309 °F	DSC/onset
Flammability, UL94	V-0	V-0	
	@Thickness 0.800 mm	@Thickness 0.0315 in	

Electrical Properties	Metric	English	Comments
Volume Resistivity	1.00e+16 ohm-cm	1.00e+16 ohm-cm	ASTM D257
Surface Resistivity per Square	1.00e+16 ohm	1.00e+16 ohm	ASTM D257
Dielectric Strength	14.0 kV/mm	356 kV/in	ASTM D149
	@Thickness 3.20 mm	@Thickness 0.126 in	
Arc Resistance	160 sec	160 sec	at 500 Volts; ASTM D495
Comparative Tracking Index	140 V	140 V	per 50 drops; ASTM D3638

Processing Properties	Metric	English	Comments
Processing Temperature	390 - 425 °C	734 - 797 °F	
Nozzle Temperature	425 °C	797 °F	
Mold Temperature	200 - 220 °C	392 - 428 °F	
Drying Temperature	150 °C	302 °F	

Dry Time Processing Properties	4 - 6 hour Metric	4 - 6 hour English	Comments
Descriptive Properties		Value	Comments
Hopper/ Throat Temperature		60-80°C	

## Contact Songhan Plastic Technology Co.,Ltd.

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