

G-PAEK™ 1200G

Polyether Ketone
Gharda Chemicals Ltd.

Message:

Product Details: Ultra high Performance thermoplastic polymer, virgin, semicrystalline granules suitable for injection molding and cast film extrusion, easy flow, Beige in color.
Application Areas: Suitable for high temperature applications, high wear & abrasion resistance, high chemical resistance is required & for metal replacement with plastics etc.

General Information			
Features	Good Abrasion Resistance		
	Good Chemical Resistance		
	Good Flow		
	Good Wear Resistance		
	High Heat Resistance		
	Semi Crystalline		
Uses	High Temperature Applications		
	Metal Replacement		
Appearance	Beige		
Forms	Granules		
Processing Method	Cast Film		
	Extrusion		
	Injection Molding		
Physical	Nominal Value	Unit	Test Method
Density	1.30	g/cm ³	
Spiral Flow ¹	40.8	cm	ASTM D3123
Molding Shrinkage ²			
Flow	1.0	%	
Across Flow	1.3	%	
Water Absorption (Equilibrium)	0.070	%	ASTM D570
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness (M-Scale, 23°C)	98		ASTM D785
Durometer Hardness (Shore D, 23°C)	87		ASTM D2240
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus (23°C)	4200	MPa	ASTM D638
Tensile Strength (Yield, 23°C)	110	MPa	ASTM D638
Tensile Elongation (Break, 23°C)	10 to 15	%	ASTM D638
Flexural Modulus (23°C)	4100	MPa	ASTM D790

Flexural Strength (23°C)	185	MPa	ASTM D790
Compressive Strength (23°C)	135	MPa	ASTM D695
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact (23°C)	60	J/m	ASTM D256
Unnotched Izod Impact (23°C)	No Break		ASTM D256
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load (1.8 MPa, Unannealed)	175	°C	ASTM D648
Continuous Use Temperature	280	°C	UL 746B
Glass Transition Temperature	152	°C	ASTM D3418
Melting Temperature	372	°C	ASTM D3418
Electrical	Nominal Value	Unit	Test Method
Surface Resistivity	1.0E+16	ohms	ASTM D257
Volume Resistivity	1.0E+16	ohms·cm	ASTM D257
Dielectric Strength (3.20 mm)	17	kV/mm	ASTM D149
Arc Resistance ³	175	sec	ASTM D495
Comparative Tracking Index ⁴	145	V	ASTM D3638
Flammability	Nominal Value	Unit	Test Method
Flame Rating (0.800 mm)	V-0		UL 94
Fill Analysis	Nominal Value	Unit	Test Method
Melt Viscosity (400°C, 1000 sec ⁻¹)	250 to 300	Pa·s	ASTM D3835
Injection	Nominal Value	Unit	
Drying Temperature	150	°C	
Drying Time	4.0 to 6.0	hr	
Hopper Temperature	60.0 to 80.0	°C	
Nozzle Temperature	400	°C	
Processing (Melt) Temp	390 to 400	°C	
Mold Temperature	200 to 220	°C	
NOTE			
1.	400°C nozzle, 220°C Mold		
2.	400°C nozzle, 210°C Mold		
3.	500 V		
4.	50 drops		

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