G-PAEK™ 1230FC

Polyether Ketone

Gharda Chemicals Ltd.

Message:

Product Details: Ultra high performance lubricated polymer, carbon fiber, PTFE, graphite and MoS 2 filled in Polyether 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.

General Information			
Filler / Reinforcement	Carbon Fiber Graphite Fiber PTFE Fiber		
Features	Food Contact Acceptable Good Chemical Resistance Good Flow Good Sterilizability Good Wear Resistance High Heat Resistance High Stiffness High Strength Semi Crystalline		
Uses	High Temperature Applications Medical/Healthcare Applications Non-specific Food Applications		
Appearance	Black		
Processing Method	Injection Molding		
Physical	**Nominal Value**	**Unit**	**Test Method**
Density	1.45	g/cm³	
Molding Shrinkage [1]			
Flow	0.11	%	
Across Flow	0.50	%	
Water Absorption (Equilibrium)	0.050	%	ASTM D570
Hardness	**Nominal Value**	**Unit**	**Test Method**
Rockwell Hardness (M-Scale, 23°C)	106		ASTM D785
Durometer Hardness (Shore D, 23°C)	91		ASTM D2240
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Modulus (23°C)	11500	MPa	ASTM D638

Tensile Strength (Yield, 23°C)	140	MPa	ASTM D638
Tensile Elongation (Break, 23°C)	1.5 to 2.0	%	ASTM D638
Flexural Modulus (23°C)	10500	MPa	ASTM D790
Flexural Strength (23°C)	210	MPa	ASTM D790
Coefficient of Friction	0.17		
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact (23°C)	45	J/m	ASTM D256
Unnotched Izod Impact (23°C)	610	J/m	ASTM D256
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load (1.8 MPa, Unannealed)	349	°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+9	ohms	ASTM D257
Flammability	Nominal Value	Unit	Test Method
Flame Rating (0.800 mm)	V-0		UL 94
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	420	°C	
Processing (Melt) Temp	390 to 420	°C	
Mold Temperature	200 to 220	°C	
NOTE			
1.	410°C nozzle, 220°C Mold		

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