G-PAEK™ 1230FCT

Polyether Ketone

Gharda Chemicals Ltd.

Message:

Product Details: Ultra high performance lubricated polymer, carbon fiber, PTFE, graphite, HBN 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 applications, where higher strength & stiffness in load- bearing applications is required. Excellent wear resistance. Chemically resistant to aggressive environments, suitable for sterilization for medical and food contact applications.

General Information			
Additive	Carbon Fiber + Graphite + PTFE Lubricant Lubricant Molybdenum Disulfide Lubricant		
Features	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		
Forms	Granules		
Processing Method	Injection Molding		
Physical	**Nominal Value**	**Unit**	**Test Method**
Density	1.41	g/cm³	
Molding Shrinkage [1]			
Flow	0.10	%	
Across Flow	0.42	%	
Water Absorption (Equilibrium)	0.050	%	ASTM D570
Hardness	**Nominal Value**	**Unit**	**Test Method**
Rockwell Hardness (M-Scale)	106		ASTM D785
Durometer Hardness (Shore D)	91		ASTM D2240
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Modulus (23°C)	19000	MPa	ASTM D638

Tensile Strength (Yield, 23°C)	125	MPa	ASTM D638
Tensile Elongation (Break, 23°C)	1.2	%	ASTM D638
Flexural Modulus (23°C)	17500	MPa	ASTM D790
Flexural Strength (23°C)	210	MPa	ASTM D790
Coefficient of Friction	0.10		
Wear Factor	2.7E-5	10^-8 mm^3/N·m	
Impact	**Nominal Value**	**Unit**	**Test Method**
Notched Izod Impact (23°C)	45	J/m	ASTM D256
Unnotched Izod Impact	510	J/m	ASTM D256
Thermal	**Nominal Value**	**Unit**	**Test Method**
Deflection Temperature Under Load (1.8 MPa, Unannealed)	348	°C	ASTM D648
Continuous Use Temperature	280	°C	UL 746B
Glass Transition Temperature	152	°C	ASTM D3418
Melting Temperature	372	°C	ASTM D3418
Flammability	**Nominal Value**		**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		

Recommended distributors for this material

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