

# G-PAEK™ 1120FE

Polyether Ketone  
Gharda Chemicals Ltd.

Message:

Product Details: Ultra High Performance Thermoplastic polymer, 20% PTFE blended in Polyether Ketone, semi-crystalline granules suitable for injection molding, easy flow, light Beige in color.

Application Areas: Suitable for high temperature applications, where higher strength & less coefficient of Friction in load-bearing applications. e.g. Valve Seats & Mechanical Seals is required. Chemically resistant to aggressive environments, suitable for valve sheet application in ball valves.

General Information			
Filler / Reinforcement	PTFE Micropowder,20% Filler by Weight		
Features	Good Abrasion Resistance		
	Good Chemical Resistance		
	Good Flow		
	High Heat Resistance		
	Semi Crystalline		
Uses	High Temperature Applications		
	Seals		
	Valves/Valve Parts		
Appearance	Beige		
Forms	Granules		
Processing Method	Injection Molding		
Physical	Nominal Value	Unit	Test Method
Density	1.40	g/cm <sup>3</sup>	
Molding Shrinkage <sup>1</sup>			
Flow	1.4	%	
Across Flow	1.9	%	
Water Absorption (Equilibrium)	0.070	%	ASTM D570
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus (23°C)	5000 to 8000	MPa	ASTM D638
Tensile Strength (Yield, 23°C)	85.0	MPa	ASTM D638
Tensile Elongation (Break, 23°C)	2.0	%	ASTM D638
Flexural Modulus (23°C)	4100	MPa	ASTM D790
Flexural Strength (23°C)	164	MPa	ASTM D790
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact (23°C)	45	J/m	ASTM D256
Unnotched Izod Impact	No Break		ASTM D256
Thermal	Nominal Value	Unit	Test Method
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

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#### Recommended distributors for this material

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