



G-PAEK™ 1215FC

Product Details: Ultra high performance lubricated polymer, PTFE, graphite and MoS₂ 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 and Excellent wear resistance is required. Chemically resistant to aggressive environments, suitable for sterilization for medical and food contact applications.

Typical Properties:

PROPERTY	TEST METHOD/CONDITIONS	UNIT	G-PAEK™ 1215FC
General Properties			
Density	23°C	g/cc	1.43
Water Absorption	ASTM D 570-98	%	0.08
Rockwell Hardness	ASTM D 785/M Scale		103
Shore D Hardness	ASTM D 2240-05		86
Mold Shrinkage (410°C nozzle, 220°C Mold)	Along Flow	%	1.1
	Across Flow	%	1.3

Thermal Properties			
Glass Transition Temperature(Tg)	ASTM D 3418	°C	152
Melting Point (Tm)	ASTM D 3418	°C	372
Heat Deflection Temperature (HDT)	ASTM D 648 /1.8 MPa	°C	195
Continuous Use Temperature(Expected)	UL 746B	°C	280

Mechanical Properties			
Tensile Strength	ASTM D 638	MPa	101
Tensile Modulus	ASTM D 638	GPa	5.2
Elongation at Break	ASTM D 638	%	5-6
Flexural Strength	ASTM D 790	MPa	180
Flexural Modulus	ASTM D 790	MPa	4.2
Izod Impact Strength(Notched)	ASTM D 256	J/m	45
Izod Impact Strength(Un-notched)	ASTM D 256	J/m	400



PROPERTY	TEST METHOD/CONDITIONS	UNIT	G-PAEK™ 1215FC
Fire Properties			
Flammability	UL 94/0.8 mm	-	V-0

Recommended Processing Conditions	
Drying Temperature/Time	4-6 hrs at 150°C
Temperature Settings	390-410°C
Nozzle Temperature	410°C
Hopper/ Throat Temperature	60-80°C
Mold Temperature	200-220°C

Nominal Granule Size
• Dimensions, length 2.0 – 4.0 mm, diameter 2.0 – 3.5 mm
• No longs greater than 8.0 mm
• Granules of uniform cut and color

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