



G-PAEK™ 1300G

Product Details: Ultra high Performance thermoplastic polymer, virgin, semicrystalline granules suitable for Injection Molding, easy flow, Beige in color.

Application Areas: Suitable for high temperature application, high wear & abrasion resistance, high chemical resistance is required & for metal replacement with plastics etc.

Typical Properties:

PROPERTY	TEST METHOD/CONDITIONS	UNIT	G-PAEK™ 1300G
General Properties			
Density	23°C	g/cc	1.30
Water Absorption	ASTM D 570-98	%	0.07
Rockwell Hardness	ASTM D 785/M Scale	-	98
Shore D Hardness	ASTM D 2240-05	-	87
Mold Shrinkage (400°C nozzle, 210°C Mold)	Along Flow	%	1.1
	Across Flow	%	1.4
Spiral Flow (400°C nozzle, 220°C Mold)	ASTM D 3123, 2 mm	mm	530

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	175
Continuous Use Temperature (Expected)	UL 746B	°C	280

Mechanical Properties at 23°C			
Tensile Strength	ASTM D 638	MPa	90
Tensile Modulus	ASTM D 638	GPa	4.3
Elongation at Break	ASTM D 638	%	4-6
Flexural Strength	ASTM D 790	MPa	163
Flexural Modulus	ASTM D 790	GPa	4.3
Compressive Strength	ASTM D 695	MPa	130
Izod Impact Strength(Notched)	ASTM D 256	J/m	35
Izod Impact Strength(Un-notched)	ASTM D 256	J/m	No Break



PROPERTY	TEST METHOD/CONDITIONS	UNIT	G-PAEK™ 1300G
Rheological Properties			
Melt Viscosity at 400°C	ASTM D 3835/@1000 s ⁻¹	Pa.s	200-250

Fire Properties			
Flammability	UL 94/0.8 mm	-	V-0

Recommended Processing Conditions	
Drying Temperature/Time	4-6 hrs at 150°C
Temperature Settings	390-400°C
Nozzle Temperature	400°C
Hopper/ Throat Temperature	60-80°C
Mold Temperature	200-220°C

Nominal Granule Size	
<ul style="list-style-type: none"> • Dimensions, length 2.0 – 4.0 mm, diameter 2.0 – 3.5 mm 	
<ul style="list-style-type: none"> • No longs greater than 8.0 mm 	
<ul style="list-style-type: none"> • Granules of uniform cut and color 	

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