GAPEKK 3300G

Product Details: Ultra high performance thermoplastic polymer, unfilled Polyether Ketone Ketone (PEKK), semicrystalline granules suitable for injection molding and compounding, standard flow, brown in color.

Application Areas: Suitable for high temperature under heavy load applications, high compressive strength & abrasion resistance, high chemical resistance & oil resistance etc.

Typical Properties:

PROPERTY	TEST METHOD/CONDITIONS	UNIT	GAPEKK 3300G
General Properties			
Density	23°C	g/cc	1.30
Water Absorption	ASTM D 570-98	%	0.04
Shore D Hardness	ASTM D 2240-05	-	87
Mold Shrinkage (425°C nozzle, 220°C Mold)	Along Flow	%	1.2
	Across Flow	%	1.3

Thermal Properties			
Glass Transition Temperature(Tg)	ASTM D 3418	°C	176
Melting Point (Tm)	ASTM D 3418	°C	396
Heat Deflection Temperature (HDT)	ASTM D 648 /1.8 MPa	°C	188
Max. Service Temperature (Expected)	UL 746B	°C	300

Mechanical Properties at 23°C			
Tensile Strength	ASTM D 638	MPa	85
Tensile Modulus	ASTM D 638	GPa	3.9
Elongation at Break	ASTM D 638	%	3-4
Flexural Strength	ASTM D 790	MPa	185
Flexural Modulus	ASTM D 790	GPa	4.0
Izod Impact Strength(Notched)	ASTM D 256	J/m	30
Izod Impact Strength(Un-notched)	ASTM D 256	J/m	No Break

Rheological Properties			
Haake Thermal Stability	GSRF 05/420°C, 60 rpm	min	25

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PROPERTY	TEST METHOD/CONDITIONS	UNIT	GAPEKK 3300G
Fire Properties			
Flammability	UL 94/0.8 mm	-	V-0

Recommended Processing Conditions	
Drying Temperature/Time	4-6 hrs at 150°C
Temperature Settings	390-425°C
Nozzle Temperature	425°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
• Processing (Injection Molding/Extrusion) period of GAPEKK 3300G polymer is strongly recommended to maintain below 25 min.