



G-PAEK™ 1200G

Product Details: Ultra high Performance Thermoplastic (Poly Aryl Ether Ketone) material, 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 & for metal to plastics conversion etc.

Typical Properties:

PROPERTY	TEST METHOD/CONDITIONS	UNIT	G-PAEK™ 1200G
General Properties			
Density	23°C	g/cc	1.30
Crystallinity	DSC	%	40
Water Absorption	24h, 23°C	%	0.08
Rockwell Hardness	ASTMD785/M Scale, 23°C		103
Shore D Hardness	23°C		86
Mold Shrinkage (410°C nozzle, 220°C Mold)	Along Flow	%	1.0
	Across Flow	%	1.3

Thermal Properties			
Glass Transition Temperature(Tg)	DSC/onset	°C	152-154
Melting Point (Tm)	DSC	°C	370-372
Heat Deflection Temperature (HDT)	1.8 MPa	°C	167

Mechanical Properties			
Tensile Strength	ASTMD 638/Yield, 23°C	MPa	100-110
	ASTMD 638/Yield, 100°C	MPa	75
	ASTMD 638/Yield, 150°C	MPa	55
	ASTMD 638/Yield, 200°C	MPa	35
	ASTMD 638/Yield, 250°C	MPa	25
	ASTMD 638/Yield, -10°C	MPa	140
	ASTMD 638/Yield, -50°C	MPa	160
Tensile Modulus	ASTMD 638/23°C	MPa	4200
Elongation at Break	ASTMD 638/Break,23°C	%	10-15
Flexural Strength	ASTMD790/23°C	MPa	185-190
Flexural Modulus	ASTMD790/23°C	MPa	4100
Izod Impact Strength(Notched)	ASTMD256/23°C	J/m	55-60
Izod Impact Strength(Un-notched)	ASTMD256/23°C	J/m	No Break



PROPERTY	TEST METHOD/CONDITIONS	UNIT	G-PAEK™ 1200G
Rheological Properties			
CR Viscosity at 6 Min	Capillary Rheometer/@1000 s ⁻¹	Pa.s	200

Electrical Properties			
Dielectric Strength	ASTMD 149/ 3.2mm thickness	Kvmm ⁻¹	16
Surface Resistivity	ASTMD 257	Ω	10 ¹⁶
Volume Resistivity	ASTMD 257	Ωcm ⁻¹	10 ¹⁶
Arc Resistance	ASTMD 495/@ 500 Volts	Sec	175
CTI	ASTMD 3638	V/50 drops	145

Fire Properties			
Flammability	UL 94/0.8 mm		V-0

Recommended Processing Conditions	
Drying Temperature/Time	4-6 Hrs at 150°C
Temperature Settings	385-410°C
Nozzle Temperature	410°C
Hopper/ Throat Temperature	60-80°C
Mold Temperature	200-220°C

PROGRESS THROUGH INNOVATIVE PRODUCTS & SERVICES

Regd. Office: 5/6, Jer Mansion, W. P. Varde Road, Bandra (W), Mumbai – 400 050, INDIA

Tel: +91- 22- 26452492/3 Fax: +91-22-26404224 Website: www.gharda.com

R&D Centre/Marketing Division: Gharda Chemicals Ltd, B-27/29, Phase-1 MIDC, Dombivli (East), Dist: Thane-421 203, Tel: +91-251-2803382-86 / +91-251-2440001-4 Fax: +91-251 -2430581/2432640

Manufacturing Unit: GCL, D-1/2, MIDC, Lote Parshuram, Taluka Khed, Dist. Ratnagiri, Maharashtra, INDIA. Tel: +91-2356-272251/54/89 Fax: +91-2356-272190