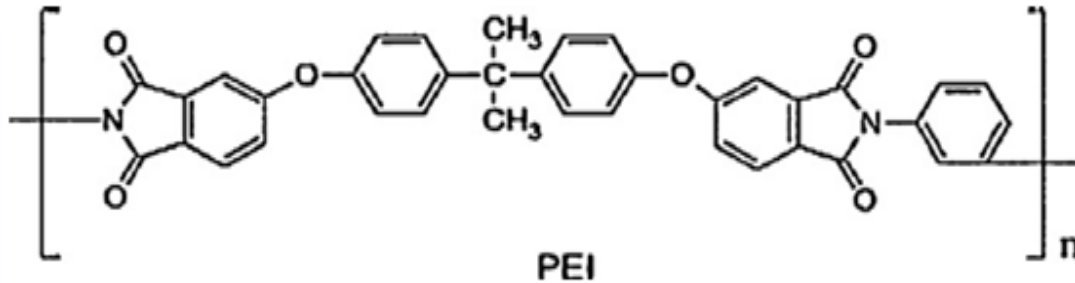


PEI Polyetherimide (GIMIDE™)

PEI is amorphous thermoplastic resin that combines excellent Thermal Properties, Exceptional Dimensional Stability, Inherent Flame Retardancy and good Chemical Resistance.



Key Points for GIMIDE™ High performance polymer:

- Amorphous Thermoplastics
- Glass Transition Temperature (T_g) of 217°C
- Very Low Outgassing making it safe for semiconductor applications.
- Maximum Continuous use Temperature up to 180°C
- Excellent Hydraulic Stability
- Excellent Dimensional Stability
- Amber Transparent



Applications:

- Auto Head Lamp Assembly
- Food Trays
- Semiconductor chip manufacturing Equipments
- Electrical Switchgear components
- Medical Sterilization Equipments/ Trays

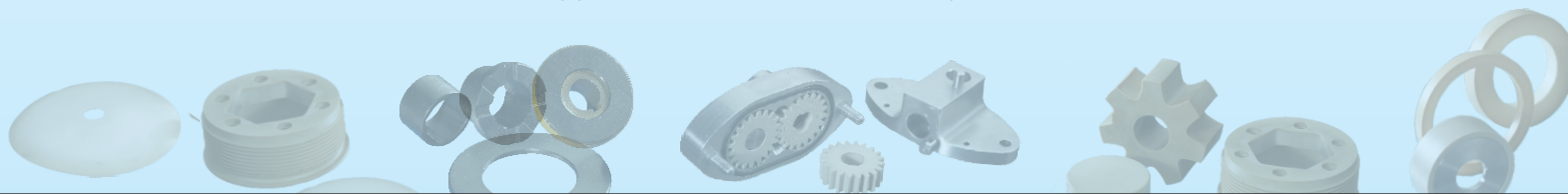
GIMIDE™ Grades:

Gharda Chemicals Limited has developed various grades as per the market and customer requirement according to applications. GIMIDE™ is available in unfilled as well filled polymers in granules form.

Grade	Viscosity	Application
7200G	High Viscosity	Compounding and Injection Molding
7300G	Medium Viscosity	Compounding and Injection Molding

G – Granules

Gharda Chemicals Limited provide technical solutions for new development and new applications with technical as well as commercial support to fulfil and establish the product in market.



PEI Polyether Imide (GIMIDE™)

Typical Properties	Test Method/Conditions	Unit	GIMIDE™ 7200G	GIMIDE™ 7300G	GIMIDE™ 7320GF-BL	GIMIDE™ 7300G - WT
General properties						
Density	23 °C	g/cc	1.26	1.26	1.42	1.47
Water Absorption	ASTM D 570-98	%	0.5	0.5	0.5	0.5
Thermal properties						
Glass Transition Temperature	ASTM D 3418	°C	217	217	218	217
Heat Deflection Temperature	ASTM D 648/1.8 Mpa	°C	195	195	212	356
Continuous use temperature*	UL 746B	°C	190	190	190	190
Mechanical properties						
Tensile strength	ASTM D 638	MPa	120	108	170	113
Tensile modulus	ASTM D 638	GPa	2.8	3.3	9.1	4.2
Elongation at break	ASTM D 638	%	15	18	4.5	6
Flexural strength	ASTM D 790	MPa	173	170	260	221
Flexural Modulus	ASTM D 790	GPa	3	3	8.9	4.5
Izod Impact strength (Notched)	ASTM D 256	J/m	26	28	90	30
Electrical properties						
Surface resistivity	ASTM D 257	Ω	1.0 X 10 ¹⁶	1.0 X 10 ¹⁶	1.0 X 10 ¹⁶	1.0 X 10 ¹¹
Volume Resistivity	ASTM D 257	Ωcm	1.0 X 10 ¹⁶	1.0 X 10 ¹⁶	1.0 X 10 ¹⁶	1.0 X 10 ¹¹
Flammability	UL 94/0.8 mm	-	V-0	v-0	V-0	V-0

All the properties are tested under standard Laboratory conditions *Material Tested upto 190°C continuously in Gharda Laboratory

The addition of Glass Fibre reinforcement drastically increases the mechanical properties at various temperatures. Addition of Carbon Fibre filled grades helps in reduction of thermal expansion rates and improves thermal conductivity. We also have specialized wear grade for Tribological applications mainly for Textile, Automotive Industry.

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