LUPOX® GP2300

LG Chem Ltd. - Polybutylene Terephthalate

Saturday, January 17, 2026

General Information

Product Description

General Purpose

Application
Automotive(Connector), Electrical & Electronic Parts

Material Type
PBT+GF30%

General		
Material Status	• Commercial: Active	
Availability	• Asia Pacific • Europe	• Latin America • North America
Filler / Reinforcement	• Glass Fiber, 30% Filler by Weight	
Uses	• Automotive Electronics • Electrical/Electronic Applications • General Purpose	
Multi-Point Data	• Isothermal Stress vs. Strain (ISO 11403) • Secant Modulus vs. Strain (ISO 11403) • Specific Heat vs. Temperature (ISO 11403) • Viscosity vs. Shear Rate (ISO 11403)	

Properties

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity			
--	1.54	g/cm³	ASTM D792
23°C	1.54	g/cm³	ISO 1183
Melt Mass-Flow Rate (MFR) (250°C/2.16 kg)	21	g/10 min	ASTM D1238 ISO 1133
Molding Shrinkage			
Flow : 23°C, 2.00 mm	0.20 to 0.50	%	ASTM D955
Across Flow : 23°C, 2.00 mm	0.70 to 1.2	%	ASTM D955 ISO 294-4
Flow : 2.00 mm	0.20 to 0.50	%	ISO 294-4
Water Absorption			
24 hr, 23°C, 50% RH	0.050	%	ASTM D570
24 hr, 23°C	0.050	%	ISO 62

Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus			
23°C, 3.20 mm [1]	11000	MPa	ASTM D638
23°C, 4.00 mm	8500	MPa	ISO 527-1/1
Tensile Strength			
Yield, 23°C, 3.20 mm [1]	127	MPa	ASTM D638
Yield, 23°C, 4.00 mm	125	MPa	ISO 527-2/5
Break, 23°C, 3.20 mm [1]	127	MPa	ASTM D638
Break, 23°C, 4.00 mm	125	MPa	ISO 527-2/5

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Mechanical	Nominal Value	Unit	Test Method
Tensile Elongation			
Yield, 23°C, 3.20 mm [1]	2.0	%	ASTM D638
Yield, 23°C, 4.00 mm	2.0	%	ISO 527-2/5
Break, 23°C, 3.20 mm [1]	2.0	%	ASTM D638
Break, 23°C, 4.00 mm	2.0	%	ISO 527-2/5
Flexural Modulus			
23°C, 3.20 mm [2]	8370	MPa	ASTM D790
23°C, 4.00 mm [3]	7890	MPa	ISO 178
Flexural Strength			
23°C, 3.20 mm [2]	196	MPa	ASTM D790
23°C, 4.00 mm [3]	203	MPa	ISO 178

Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength			ISO 179
-30°C, 4.00 mm	8.0	kJ/m²	
23°C, 4.00 mm	8.7	kJ/m²	
Notched Izod Impact			
-30°C, 3.20 mm	66	J/m	ASTM D256
23°C, 3.20 mm	76	J/m	ASTM D256
-30°C, 4.00 mm [4]	8.0	kJ/m²	ISO 180
23°C, 4.00 mm [4]	8.8	kJ/m²	ISO 180

Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness (R-Scale)	120		ASTM D785 ISO 2039-2

Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			
0.45 MPa, Unannealed, 6.40 mm	216	°C	ASTM D648
0.45 MPa, Unannealed, 4.00 mm	220	°C	ISO 75-2/Bf
1.8 MPa, Unannealed, 6.40 mm	210	°C	ASTM D648
1.8 MPa, Unannealed, 4.00 mm	205	°C	ISO 75-2/Af
Vicat Softening Temperature	210	°C	ISO 306/B50 ASTM D1525 [5]
Melting Temperature	223	°C	ISO 11357-3 ASTM D3418
CLTE			
Flow : -30 to 80°C	2.4E-5	cm/cm/°C	ASTM D696
Flow : -30 to 80°C	24	ppm/K	ISO 11359-2
Transverse : -30 to 80°C	1.0E-4	cm/cm/°C	ASTM D696
Transverse : -30 to 80°C	100	ppm/K	ISO 11359-2
RTI Elec (0.7 to 3.3 mm)	140	°C	UL 746B
RTI Imp (0.7 to 3.3 mm)	130	°C	UL 746B
RTI Str (0.7 to 3.3 mm)	140	°C	UL 746B

Electrical	Nominal Value	Unit	Test Method
Surface Resistivity (23°C)	1.0E+13	ohms	ASTM D257
Volume Resistivity (23°C)	1.0E+13	ohms·cm	ASTM D257
Dielectric Strength (23°C, 2000 µm)	22	kV/mm	ASTM D149
Dielectric Constant (23°C)	3.60		ASTM D150
Comparative Tracking Index (CTI)	PLC 0		UL 746A

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Flammability	Nominal Value	Unit	Test Method
Flame Rating			UL 94
0.71 mm	HB		
1.5 mm	HB		
3.3 mm	HB		

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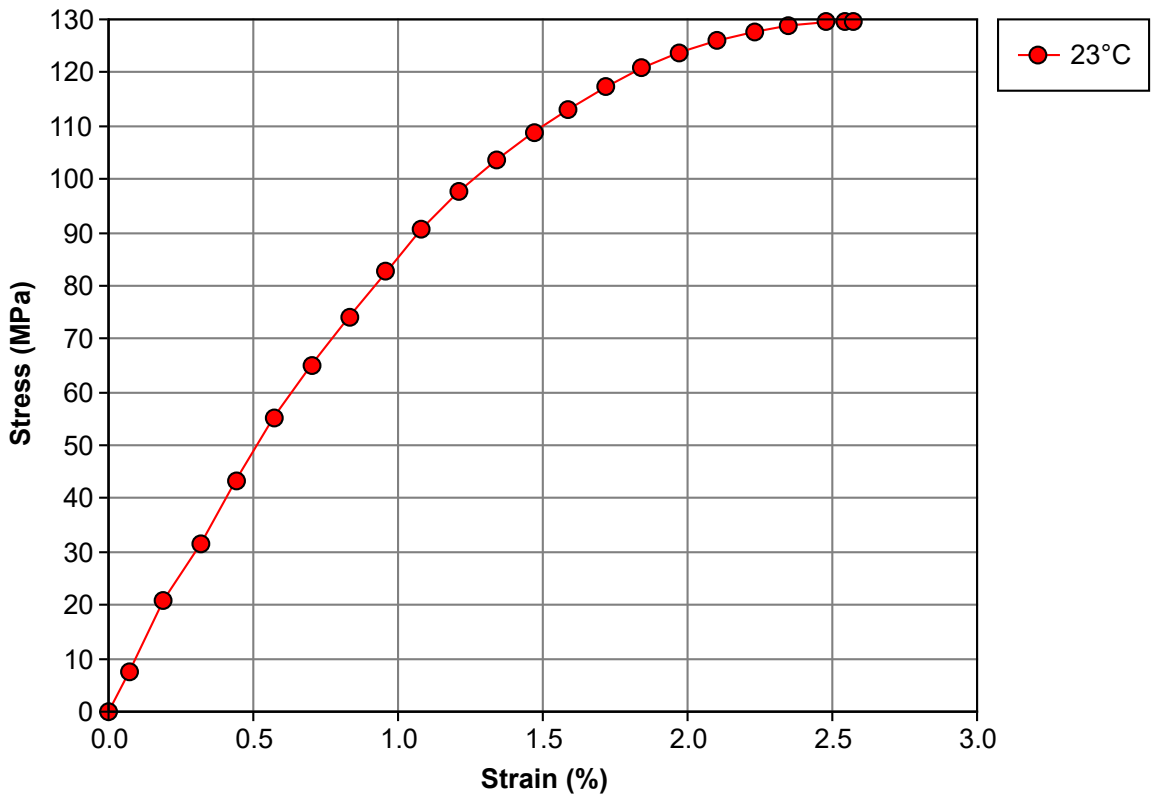
Isothermal Stress vs. Strain (ISO 11403)



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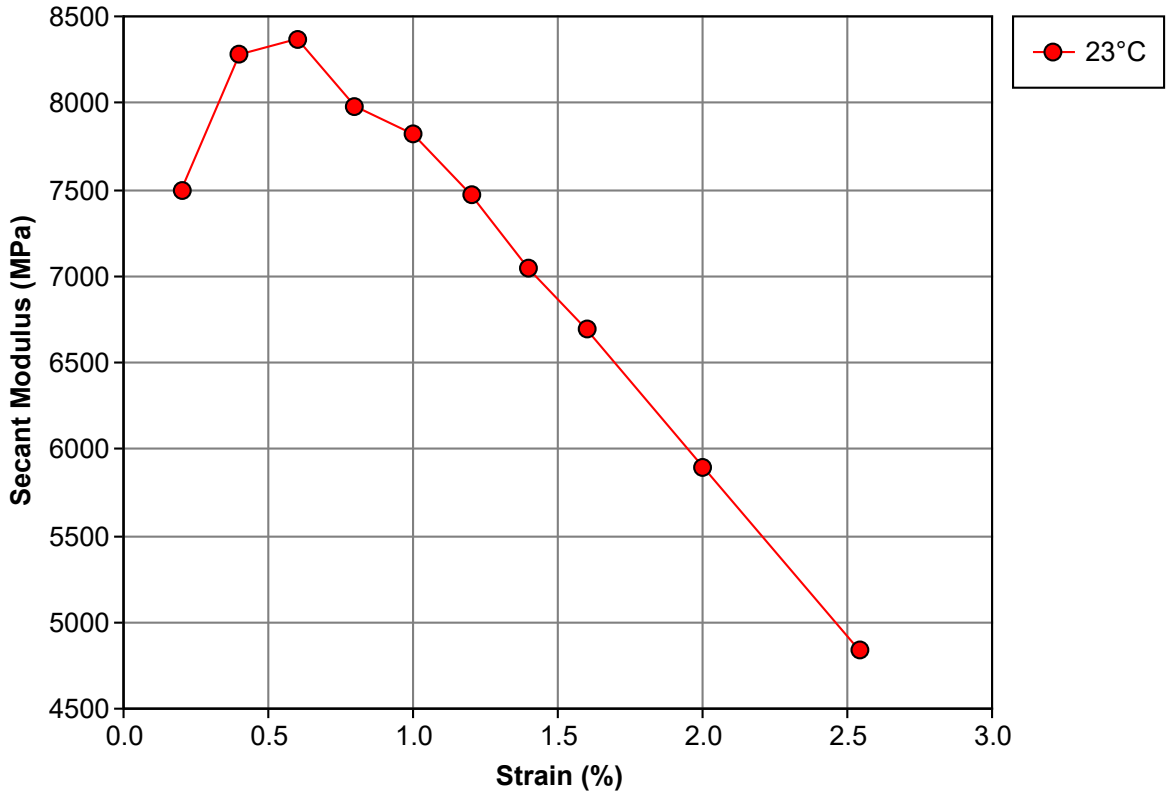
Secant Modulus vs. Strain (ISO 11403)



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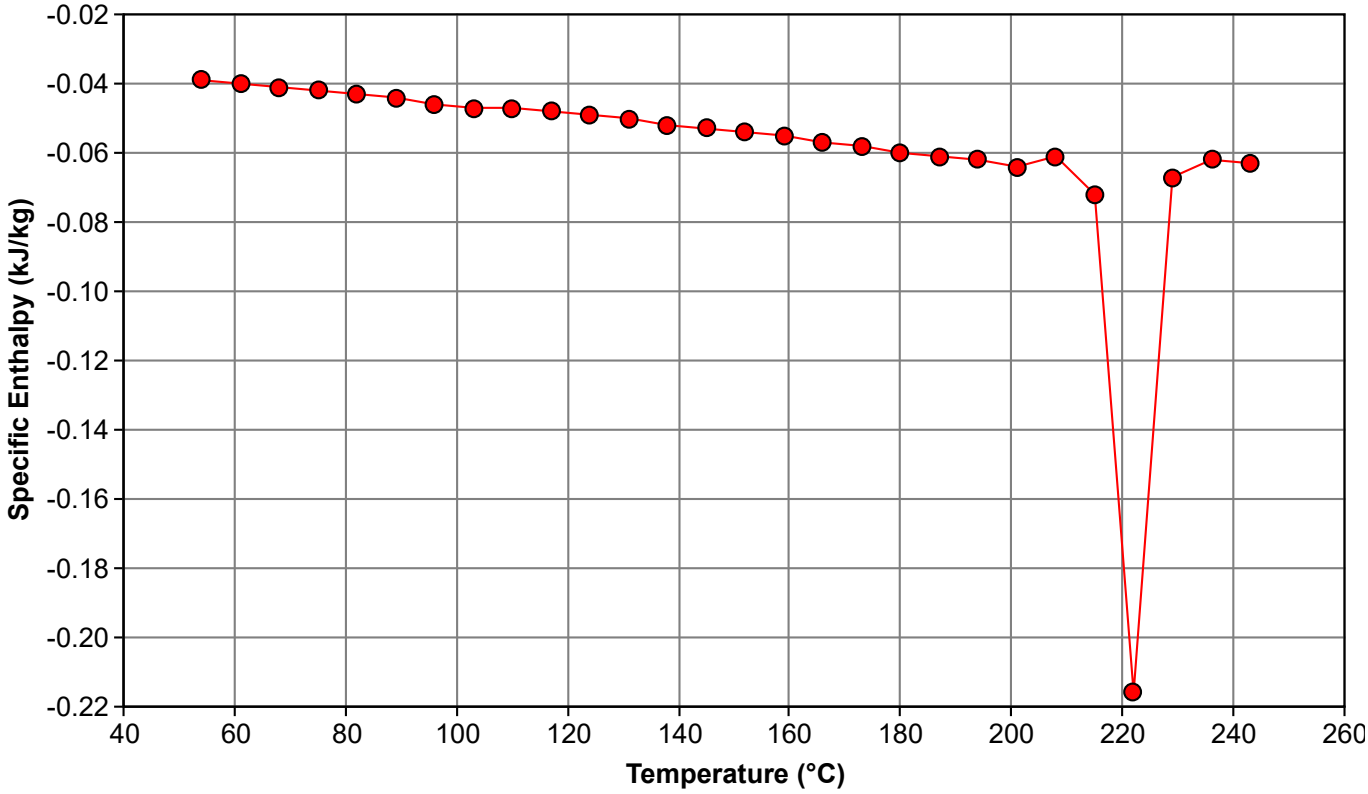
Specific Heat vs. Temperature (ISO 11403)



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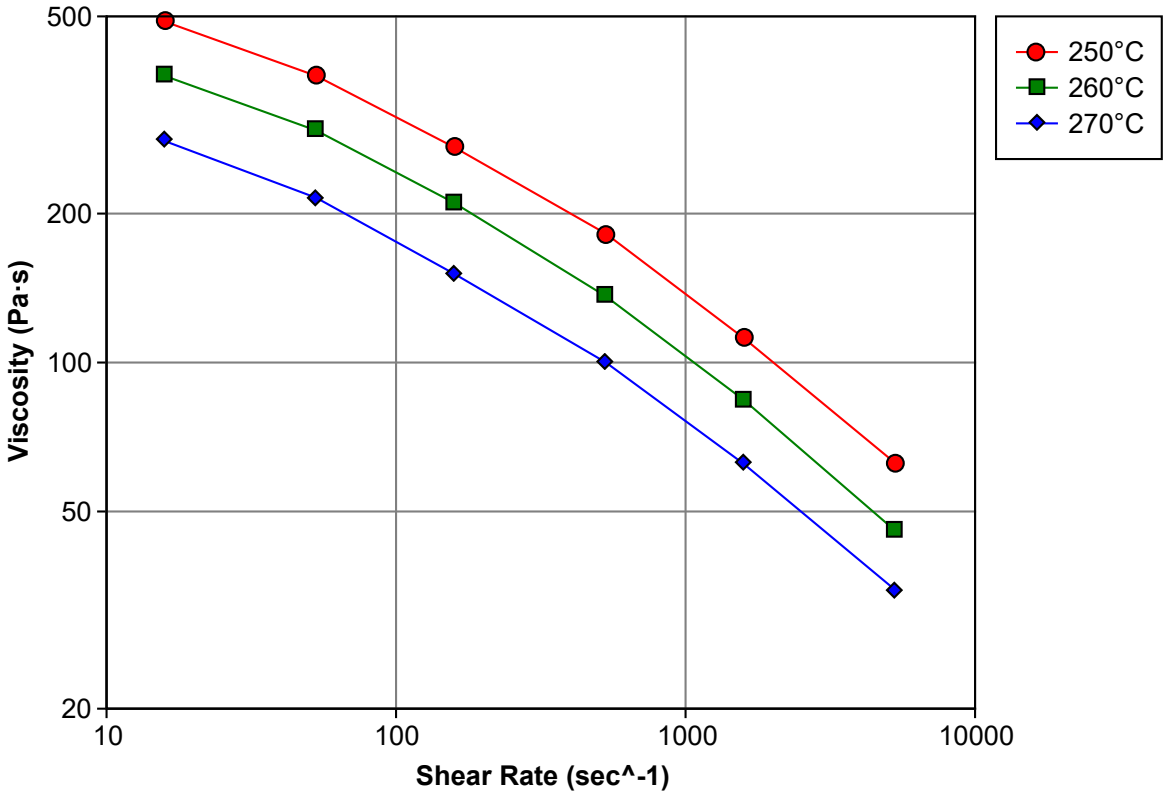
Viscosity vs. Shear Rate (ISO 11403)



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Processing Information

Injection	Nominal Value	Unit
Drying Temperature	100 to 120	°C
Drying Time	4.0 to 6.0	hr
Suggested Max Moisture	0.020	%
Rear Temperature	240 to 250	°C
Middle Temperature	240 to 250	°C
Front Temperature	240 to 250	°C
Nozzle Temperature	240 to 260	°C
Processing (Melt) Temp	230 to 260	°C
Mold Temperature	60 to 100	°C

Notes

[1] 5.0 mm/min

[2] 1.3 mm/min

[3] 2.0 mm/min

[4] 80*10*4mm

[5] Rate A (50°C/h), Loading 2 (50 N)