LUMID® GP2300A(W)

LG Chem Ltd. - Polyamide 6

Thursday, November 27, 2025

General Information

Product Description

General Purpose

Application
Automotive Parts, Electrical & Electronic Parts

Material Type
PA6-GF30

General

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

Properties

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity			
--	1.36	g/cm³	ASTM D792
23°C	1.36	g/cm³	ISO 1183
Molding Shrinkage			ASTM D955 ISO 294-4
Flow : 2.00 mm	0.10 to 0.30	%	
Across Flow : 2.00 mm	0.30 to 0.50	%	
Water Absorption (Equilibrium, 23°C, 50% RH)	2.1	%	ASTM D570 ISO 62

Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus			
3.20 mm [1]	10700	MPa	ASTM D638
4.00 mm	10100	MPa	ISO 527-1/1
Tensile Strength			
Break, 3.20 mm [1]	167	MPa	ASTM D638
Break, 4.00 mm	174	MPa	ISO 527-2/5
Tensile Elongation			
Break, 3.20 mm [1]	2.5	%	ASTM D638
Break, 4.00 mm	2.5	%	ISO 527-2/5
Flexural Modulus			
3.20 mm [2]	8080	MPa	ASTM D790
6.40 mm [2]	8040	MPa	ASTM D790
4.00 mm [3]	8000	MPa	ISO 178

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Mechanical	Nominal Value	Unit	Test Method
Flexural Strength			
3.20 mm [2]	235	MPa	ASTM D790
6.40 mm [2]	230	MPa	ASTM D790
4.00 mm [3]	245	MPa	ISO 178
Impact	**Nominal Value**	**Unit**	**Test Method**
Charpy Notched Impact Strength [4]			ISO 179
-40°C, 4.00 mm	7.3	kJ/m²	
-30°C, 4.00 mm	7.8	kJ/m²	
23°C, 4.00 mm	10	kJ/m²	
Notched Izod Impact			
-40°C, 6.40 mm	68	J/m	ASTM D256
-30°C, 3.20 mm	77	J/m	ASTM D256
-30°C, 6.40 mm	73	J/m	ASTM D256
23°C, 3.20 mm	98	J/m	ASTM D256
23°C, 6.40 mm	85	J/m	ASTM D256
-40°C, 4.00 mm [4]	7.3	kJ/m²	ISO 180
-30°C, 4.00 mm [4]	7.9	kJ/m²	ISO 180
23°C, 4.00 mm [4]	9.3	kJ/m²	ISO 180
Hardness	**Nominal Value**	**Unit**	**Test Method**
Rockwell Hardness (R-Scale)	121		ASTM D785 ISO 2039-2
Thermal	**Nominal Value**	**Unit**	**Test Method**
Deflection Temperature Under Load			
0.45 MPa, Unannealed, 6.40 mm	213	°C	ASTM D648
0.45 MPa, Unannealed, 4.00 mm	212	°C	ISO 75-2/Bf
1.8 MPa, Unannealed, 6.40 mm	208	°C	ASTM D648
1.8 MPa, Unannealed, 4.00 mm	208	°C	ISO 75-2/Af
Vicat Softening Temperature			
--	206	°C	ASTM D1525 [5]
--	200	°C	ISO 306/B50
Melting Temperature	220	°C	ISO 11357-3 ASTM D3418
CLTE			
Flow : -30 to 80°C	2.7E-5	cm/cm/°C	ASTM D696
Flow : -30 to 80°C	27	ppm/K	ISO 11359-2
Transverse : -30 to 80°C	9.7E-5	cm/cm/°C	ASTM D696
Transverse : -30 to 80°C	97	ppm/K	ISO 11359-2
RTI Elec			UL 746B
0.75 mm	65.0	°C	
1.5 mm	65.0	°C	
3.0 mm	65.0	°C	
RTI Imp			UL 746B
0.75 mm	65.0	°C	
1.5 mm	65.0	°C	
3.0 mm	65.0	°C	

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Thermal	Nominal Value	Unit	Test Method
RTI Str			UL 746B
0.75 mm	65.0	°C	
1.5 mm	65.0	°C	
3.0 mm	65.0	°C	
Electrical	**Nominal Value**	**Unit**	**Test Method**
Surface Resistivity (23°C)	1.0E+14	ohms	ASTM D257
Volume Resistivity (23°C)	1.0E+14	ohms·cm	ASTM D257
Dielectric Strength (23°C, 2000 µm)	21	kV/mm	ASTM D149
Dielectric Constant (23°C, 1.00 GHz)	3.80		ASTM D150
Comparative Tracking Index (CTI)			UL 746A
0.750 mm	PLC 1		
1.50 mm	PLC 1		
3.00 mm	PLC 1		
High Amp Arc Ignition (HAI)			UL 746A
0.75 mm	PLC 0		
1.5 mm	PLC 0		
3.0 mm	PLC 0		
Hot-wire Ignition (HWI)			UL 746A
0.75 mm	PLC 3		
1.5 mm	PLC 3		
3.0 mm	PLC 3		
Flammability	**Nominal Value**	**Unit**	**Test Method**
Flame Rating			UL 94
0.75 mm, All	HB		
1.5 mm, All	HB		
3.0 mm, All	HB		

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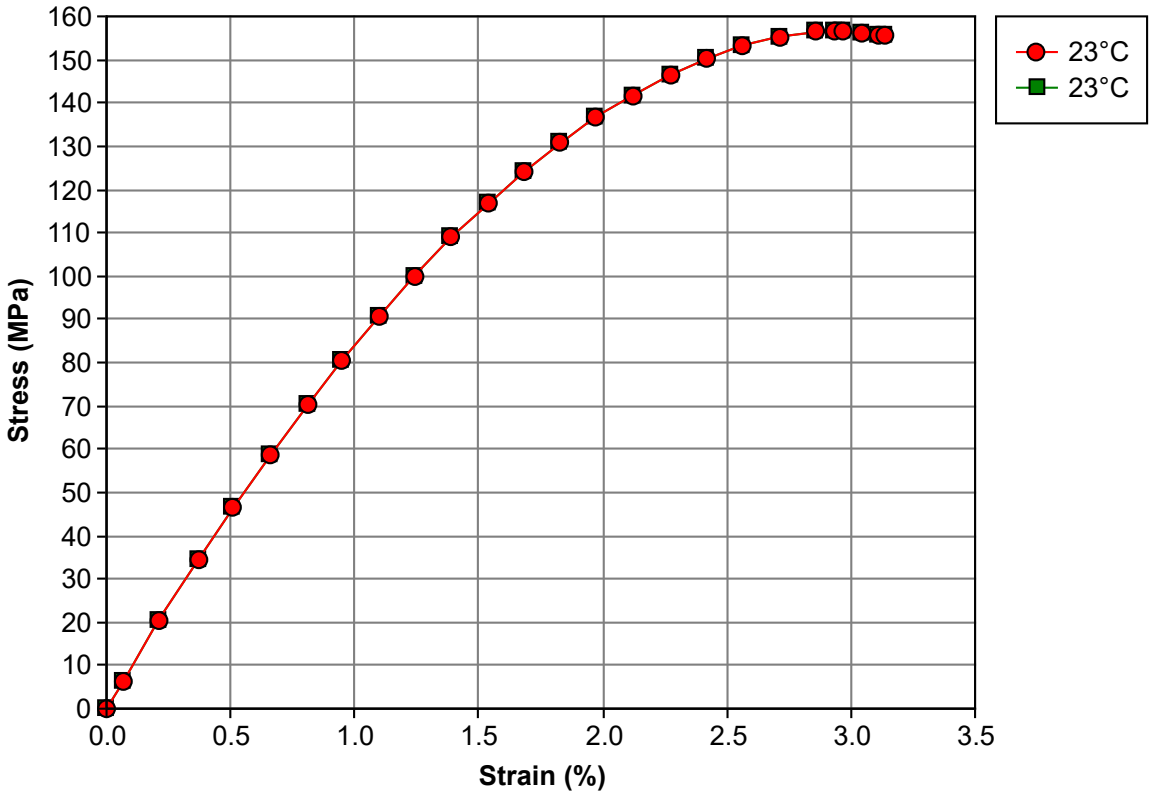
Isothermal Stress vs. Strain (ISO 11403)



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Processing Information

Injection	Nominal Value	Unit
Drying Temperature	80 to 100	°C
Drying Time	4.0 to 5.0	hr
Suggested Max Moisture	0.12	%
Rear Temperature	250 to 270	°C
Middle Temperature	260 to 285	°C
Front Temperature	260 to 290	°C
Nozzle Temperature	260 to 290	°C
Processing (Melt) Temp	260 to 290	°C
Mold Temperature	80 to 100	°C
Screw Speed	50 to 200	rpm

Notes

[1] 5.0 mm/min

[2] 1.3 mm/min

[3] 2.0 mm/min

[4] Thickness 4.0mm

[5] Rate A (50°C/h), Loading 2 (50 N)