

LUPOY® GN5007FM

LG Chem Ltd. - Polycarbonate + ABS

Friday, November 7, 2025

General Information

Product Description

Flame Retardant

Application

Electrical & Electronic Parts

Material Type

PC

General

Material Status	• Commercial: Active	
Availability	• Asia Pacific	• Latin America
	• Europe	• North America
Features	• Flame Retardant	
Uses	• Electrical/Electronic Applications	

Properties

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity			
--	1.19	g/cm ³	ASTM D792
23°C	1.19	g/cm ³	ISO 1183
Melt Mass-Flow Rate (MFR) (250°C/2.16 kg)	5.4	g/10 min	ASTM D1238 ISO 1133
Molding Shrinkage			ASTM D955 ISO 294-4
Flow : 2.00 mm	0.50 to 0.80	%	
Across Flow : 2.00 mm	0.60 to 0.90	%	
Water Absorption			
24 hr, 23°C, 50% RH	0.20	%	ASTM D570
24 hr, 23°C	0.20	%	ISO 62
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus			
3.20 mm ¹	2080	MPa	ASTM D638
4.00 mm	2130	MPa	ISO 527-1/1
Tensile Strength			
Yield, 3.20 mm ¹	60.8	MPa	ASTM D638
Yield, 4.00 mm	61.0	MPa	ISO 527-2/50
Break, 3.20 mm ¹	64.7	MPa	ASTM D638
Break, 4.00 mm	61.0	MPa	ISO 527-2/50
Tensile Elongation			
Yield, 3.20 mm ¹	6.6	%	ASTM D638
Yield, 4.00 mm	6.4	%	ISO 527-2/50
Break, 3.20 mm ¹	120	%	ASTM D638
Break, 4.00 mm	100	%	ISO 527-2/50

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Mechanical	Nominal Value	Unit	Test Method
Flexural Modulus			
3.20 mm ²	2260	MPa	ASTM D790
4.00 mm ³	2170	MPa	ISO 178
Flexural Strength			
3.20 mm ²	98.0	MPa	ASTM D790
4.00 mm ³	90.0	MPa	ISO 178
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength			ISO 179
-40°C	10	kJ/m ²	
-30°C	12	kJ/m ²	
23°C	55	kJ/m ²	
Notched Izod Impact			
-40°C, 6.40 mm	88	J/m	ASTM D256
-30°C, 3.20 mm	110	J/m	ASTM D256
-30°C, 6.40 mm	88	J/m	ASTM D256
23°C, 3.20 mm	740	J/m	ASTM D256
23°C, 6.40 mm	110	J/m	ASTM D256
-40°C	11	kJ/m ²	ISO 180
-30°C	11	kJ/m ²	ISO 180
23°C	33	kJ/m ²	ISO 180
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness (R-Scale)	118		ASTM D785 ISO 2039-2
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			
0.45 MPa, Unannealed, 6.40 mm	136	°C	ASTM D648
0.45 MPa, Unannealed, 4.00 mm	134	°C	ISO 75-2/Bf
1.8 MPa, Unannealed, 6.40 mm	120	°C	ASTM D648
1.8 MPa, Unannealed, 4.00 mm	110	°C	ISO 75-2/Af
Vicat Softening Temperature			
--	141	°C	ASTM D1525 ⁴
--	130	°C	ISO 306/B50
CLTE			
Flow : -30 to 80°C	8.5E-5	cm/cm/°C	ASTM D696
Flow : -30 to 80°C	85	ppm/K	ISO 11359-2
Transverse : -30 to 80°C	7.7E-5	cm/cm/°C	ASTM D696
Transverse : -30 to 80°C	77	ppm/K	ISO 11359-2
RTI Elec			UL 746B
1.5 mm	95.0	°C	
3.0 mm	95.0	°C	
RTI Imp			UL 746B
1.5 mm	90.0	°C	
3.0 mm	90.0	°C	
RTI Str			UL 746B
1.5 mm	95.0	°C	
3.0 mm	95.0	°C	

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Electrical	Nominal Value	Unit	Test Method
Surface Resistivity (23°C)	1.0E+15	ohms	ASTM D257
Volume Resistivity (23°C)	1.0E+15	ohms·cm	ASTM D257
Dielectric Strength (23°C, 2000 µm)	18	kV/mm	ASTM D149
Dielectric Constant (23°C)	2.80		ASTM D150
Comparative Tracking Index (CTI)	PLC 2		UL 746A
High Amp Arc Ignition (HAI)			UL 746A
1.5 mm	PLC 0		
3.0 mm	PLC 0		
Hot-wire Ignition (HWI)			UL 746A
1.5 mm	PLC 3		
3.0 mm	PLC 2		
Flammability	Nominal Value	Unit	Test Method
Flame Rating			UL 94
1.5 mm, All	V-0		
3.0 mm, All	V-0		

Processing Information

Injection	Nominal Value	Unit
Drying Temperature	80 to 100	°C
Drying Time	3.0 to 5.0	hr
Suggested Max Moisture	0.020	%
Rear Temperature	260 to 270	°C
Middle Temperature	270 to 280	°C
Front Temperature	280 to 290	°C
Nozzle Temperature	300 to 320	°C
Processing (Melt) Temp	270 to 290	°C
Mold Temperature	80 to 120	°C
Screw Speed	40 to 80	rpm

Notes

¹ 50 mm/min

² 10 mm/min

³ 2.0 mm/min

⁴ Rate A (50°C/h), Loading 2 (50 N)