Lupoy® GP5206F

Polycarbonate + ABS

LG Chem Ltd.

Message:

LUPOY 5000 series is PC/ABS alloy that combine the superior impact strength and the heat resistance of PC with the processibility and ductility of ABS. LUPOY GP-5206F is glass fiber reinforced PC/ABS alloy which offers good processibility and heat resistance. The grade fits the requirement of Underwriters Laboratories for UL 94 V-0(1/16") flammability ratings. The flammability and processibility of this grade makes it suitable for electric/electronics applications.

General Information		
UL YellowCard	E248280-322219	E353371-101107250
Filler / Reinforcement	Glass fiber reinforced material	
Features	Impact resistance, good Workability, good Heat resistance, high ductility Flame retardancy	
Uses	Electrical/Electronic Applications	
UL File Number	E67171	
Multi-Point Data	Isothermal Stress vs. Strain (ISO 11403-1) Secant Modulus vs. Strain (ISO 11403-1) Specific Heat vs. Temperature (ISO 11403-2) Viscosity vs. Shear Rate (ISO 11403-2)	

Physical	Nominal Value	Unit	Test Method
Specific Gravity			
--	1.35	g/cm³	ASTM D792
--	1340	kg/m³	ISO 1183 [1]
Melt volume-flow rate (260°C/5.0 kg)	12.3	cm³/10min	ISO 1133 [2]
Molding Shrinkage - Flow (3.18 mm)	1.0 - 3.0	%	ASTM D955
Water Absorption (Saturation)	0.10	%	ISO 62 [3]
Hardness	**Nominal Value**	**Unit**	**Test Method**
Rockwell Hardness (R-Scale)	117		ASTM D785
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Modulus	6300	MPa	ISO 527-2 [4]
Tensile Stress			
Fracture	96.0	MPa	ISO 527-2 [5]
--	93.2	MPa	ASTM D638
Tensile Elongation			
Fracture	4.0	%	ASTM D638

Fracture	1.8	%	ISO 527-2 [6]
Flexural Modulus (3.18 mm)	5690	MPa	ASTM D790
Flexural Strength (Yield, 3.18 mm)	137	MPa	ASTM D790
Impact	**Nominal Value**	**Unit**	**Test Method**
Charpy Notched Impact Strength			ISO 179/1eA [7]
-30°C	7.50	kJ/m²	ISO 179/1eA
23°C	8.20	kJ/m²	ISO 179/1eA
Charpy impact strength			ISO 179/1eU [8]
-30°C	35.9	kJ/m²	ISO 179/1eU
23°C	38.3	kJ/m²	ISO 179/1eU
Notched Izod Impact (23°C)	69	J/m	ASTM D256
Thermal	**Nominal Value**	**Unit**	**Test Method**
Heat Deflection Temperature			
0.45 MPa	135	°C	ISO 75-2 [9]
1.8 MPa, unannealed, 3.18mm	120	°C	ASTM D648
1.8 MPa	125	°C	ISO 75-2 [10]
Glass Transition Temperature [11]	140	°C	ISO 11357-2 [12]
Vicat Softening Temperature (50°C/h, B (50N))	127	°C	ISO 306 [13]
Linear expansion coefficient			ISO 11359-2 [14]
Flow	2.9E-5	cm/cm/°C	ISO 11359-2
Lateral	6.2E-5	cm/cm/°C	ISO 11359-2
RTI Elec (1.70 mm)	60.0	°C	UL 746
RTI Imp (1.70 mm)	60.0	°C	UL 746
RTI (1.70 mm)	60.0	°C	UL 746
Electrical	**Nominal Value**	**Unit**	**Test Method**
Surface Resistivity	> 1.0E+15	ohms	IEC 60093 [15]
Volume Resistivity	> 1.0E+13	ohms·m	IEC 60093 [16]
Electric strength	28	kV/mm	IEC 60243-1 [17]
Relative Permittivity (1 MHz)	3.10		IEC 60250 [18]
Dissipation Factor (1 MHz)	0.010		IEC 60250 [19]
Comparative Tracking Index	200		IEC 60112 [20]
Flammability	**Nominal Value**	**Unit**	**Test Method**
Flame Rating (1.70 mm)	V-0		UL 94
Burning Behav. at thickness h (1.70 mm, UL)	V-0		ISO 1210 [21]
Injection	**Nominal Value**	**Unit**	
Drying Temperature	80.0 - 100	°C	
Drying Time	3.0 - 4.0	hr	
Rear Temperature	235 - 245	°C	
Middle Temperature	245 - 255	°C	
Front Temperature	245 - 255	°C	
Nozzle Temperature	245 - 255	°C	

Mold Temperature	50.0 - 70.0	°C
Injection Pressure	58.8 - 118	MPa
Back Pressure	0.981 - 3.92	MPa
Screw Speed	40 - 80	rpm

Injection instructions
Injection Pressure, secondary: 500 to 1000 kg/cm^2

NOTE	
1.	??????,?? ISO 10350 ??? 23°C/50%r.h. ???
2.	??????,?? ISO 10350 ??? 23°C/50%r.h. ???
3.	??????,?? ISO 10350 ??? 23°C/50%r.h. ???
4.	??????,?? ISO 10350 ??? 23°C/50%r.h. ???
5.	??????,?? ISO 10350 ??? 23°C/50%r.h. ???
6.	??????,?? ISO 10350 ??? 23°C/50%r.h. ???
7.	??????,?? ISO 10350 ??? 23°C/50%r.h. ???
8.	??????,?? ISO 10350 ??? 23°C/50%r.h. ???
9.	??????,?? ISO 10350 ??? 23°C/50%r.h. ???
10.	??????,?? ISO 10350 ??? 23°C/50%r.h. ???
11.	10 °C/min
12.	??????,?? ISO 10350 ??? 23°C/50%r.h. ???
13.	??????,?? ISO 10350 ??? 23°C/50%r.h. ???
14.	??????,?? ISO 10350 ??? 23°C/50%r.h. ???
15.	??????,?? ISO 10350 ??? 23°C/50%r.h. ???
16.	??????,?? ISO 10350 ??? 23°C/50%r.h. ???
17.	??????,?? ISO 10350 ??? 23°C/50%r.h. ???
18.	??????,?? ISO 10350 ??? 23°C/50%r.h. ???
19.	??????,?? ISO 10350 ??? 23°C/50%r.h. ???
20.	??????,?? ISO 10350 ??? 23°C/50%r.h. ???
21.	??????,?? ISO 10350 ??? 23°C/50%r.h. ???

Recommended distributors for this material

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