

Lupoy® HR5007A

Polycarbonate + ABS

LG Chem Ltd.

Message:

Description

Heat Resistance, High Flow, High Impact.

Application

Automotive (Interior), E&E(housing)

General Information	
UL YellowCard	E248280-322216
Additive	Lubricant
Features	High Flow
	High Heat Resistance
	High Impact Resistance
Uses	Automotive Interior Parts
	Electrical Parts
	Electrical/Electronic Applications
Appearance	Natural Color
Forms	Pellets
Processing Method	Injection Molding
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			
--	1.14	g/cm ³	ASTM D792
--	1130	kg/m ³	ISO 1183 ¹
Melt Mass-Flow Rate (MFR) (250°C/2.16 kg)	5.3	g/10 min	ASTM D1238
Melt volume-flow rate (260°C/5.0 kg)	18.0	cm ³ /10min	ISO 1133 ²
Molding Shrinkage - Flow (3.20 mm, Injection Molded)	0.50 to 0.80	%	ASTM D955
Water Absorption (Saturation)	0.15	%	ISO 62 ³
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness (R-Scale)	114		ASTM D785
Mechanical	Nominal Value	Unit	Test Method
Tensile modulus	2200	MPa	ISO 527-2 ⁴

Tensile Strength			
Yield, 3.20 mm, Injection Molded ⁵	56.9	MPa	ASTM D638
Yield	60.0	MPa	ISO 527-2 ⁶
Tensile Strain			
Yield	4.9	%	ISO 527-2 ⁷
Break, 3.20 mm, Injection Molded ⁸	> 100	%	ASTM D638
Nominal strain at break	> 50	%	ISO 527-2 ⁹
Flexural Modulus ¹⁰ (3.20 mm, Injection Molded)	2110	MPa	ASTM D790
Flexural Strength ¹¹ (3.20 mm)	77.5	MPa	ASTM D790
Impact	Nominal Value	Unit	Test Method
Charpy notched impact strength			ISO 179/1eA ¹²
-30°C	36.3	kJ/m ²	
23°C	No Break		
Charpy impact strength			ISO 179/1eU ¹³
-30°C	No Break		
23°C	No Break		
Notched Izod Impact			ASTM D256
-30°C, 3.20 mm, Injection Molded	490	J/m	
23°C, 3.20 mm, Injection Molded	640	J/m	
Unnotched Izod Impact			ASTM D256
Thermal			Test Method
Deflection Temperature Under Load			
1.8 MPa, Unannealed, 6.40 mm, Injection Molded	113	°C	ASTM D648
1.8 MPa	104	°C	ISO 75-2 ¹⁴
Glass Transition Temperature ¹⁵	150	°C	ISO 11357-2 ¹⁶
Vicat Softening Temperature (50°C/h, B (50N))	119	°C	ISO 306 ¹⁷
CLTE			ISO 11359-2 ¹⁸
Flow	7.7E-5	cm/cm/°C	
Transverse	8.3E-5	cm/cm/°C	
RTI Elec			UL 746
1.60 mm	60.0	°C	
3.00 mm	60.0	°C	
RTI Imp			UL 746
1.60 mm	60.0	°C	
3.00 mm	60.0	°C	
RTI Str			UL 746
1.60 mm	60.0	°C	
3.00 mm	60.0	°C	
Electrical	Nominal Value	Unit	Test Method
Surface resistivity	3.8E+14	ohms	IEC 60093 ¹⁹

Volume resistivity	> 1.0E+13	ohms·m	IEC 60093 ²⁰
Electric strength	42	kV/mm	IEC 60243-1 ²¹
Relative Permittivity (1 MHz)	2.80		IEC 60250 ²²
Dissipation Factor (1 MHz)	0.010		IEC 60250 ²³
Arc Resistance	PLC 6		ASTM D495
Comparative Tracking Index (CTI)	PLC 0		UL 746
Comparative tracking index	200		IEC 60112 ²⁴
High Amp Arc Ignition (HAI)			UL 746
1.60 mm	PLC 1		
3.00 mm	PLC 1		
High Voltage Arc Resistance to Ignition (HVAR)	PLC 6		UL 746
Hot-wire Ignition (HWI)			UL 746
1.60 mm	PLC 3		
3.00 mm	PLC 3		
Flammability	Nominal Value	Unit	Test Method
Flame Rating			UL 94
1.60 mm	HB		
3.00 mm	HB		
Injection	Nominal Value	Unit	
Drying Temperature	80.0 to 100	°C	
Drying Time	4.0 to 6.0	hr	
Suggested Max Moisture	< 0.020	%	
Rear Temperature	240 to 270	°C	
Middle Temperature	245 to 275	°C	
Front Temperature	245 to 275	°C	
Nozzle Temperature	245 to 275	°C	
Processing (Melt) Temp	250 to 275	°C	
Mold Temperature	50.0 to 70.0	°C	
Screw Speed	40 to 70	rpm	
NOTE			
1.	Tested in accordance with ISO 10350. 23°C/50%r.h. unless otherwise noted.		
2.	Tested in accordance with ISO 10350. 23°C/50%r.h. unless otherwise noted.		
3.	Tested in accordance with ISO 10350. 23°C/50%r.h. unless otherwise noted.		
4.	Tested in accordance with ISO 10350. 23°C/50%r.h. unless otherwise noted.		
5.	50 mm/min		

6.	Tested in accordance with ISO 10350. 23°C/50%r.h. unless otherwise noted.
7.	Tested in accordance with ISO 10350. 23°C/50%r.h. unless otherwise noted.
8.	50 mm/min
9.	Tested in accordance with ISO 10350. 23°C/50%r.h. unless otherwise noted.
10.	10 mm/min
11.	10 mm/min
12.	Tested in accordance with ISO 10350. 23°C/50%r.h. unless otherwise noted.
13.	Tested in accordance with ISO 10350. 23°C/50%r.h. unless otherwise noted.
14.	Tested in accordance with ISO 10350. 23°C/50%r.h. unless otherwise noted.
15.	10 °C/min
16.	Tested in accordance with ISO 10350. 23°C/50%r.h. unless otherwise noted.
17.	Tested in accordance with ISO 10350. 23°C/50%r.h. unless otherwise noted.
18.	Tested in accordance with ISO 10350. 23°C/50%r.h. unless otherwise noted.
19.	Tested in accordance with ISO 10350. 23°C/50%r.h. unless otherwise noted.
20.	Tested in accordance with ISO 10350. 23°C/50%r.h. unless otherwise noted.
21.	Tested in accordance with ISO 10350. 23°C/50%r.h. unless otherwise noted.
22.	Tested in accordance with ISO 10350. 23°C/50%r.h. unless otherwise noted.
23.	Tested in accordance with ISO 10350. 23°C/50%r.h. unless otherwise noted.
24.	Tested in accordance with ISO 10350. 23°C/50%r.h. unless otherwise noted.

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