

LG ABS HT700

Acrylonitrile Butadiene Styrene

LG Chem Ltd.

Message:

Description
High Stiffness
Application
Electric&Electronic Products, Miscellaneous Goods

General Information			
UL YellowCard	E67171-248373		
Features	High Stiffness		
Uses	Electrical/Electronic Applications		
Forms	Pellets		
Processing Method	Injection Molding		
Multi-Point Data	Specific Heat vs. Temperature (ISO 11403-2)		
Physical	Nominal Value	Unit	Test Method
Specific Gravity			
--	1.05	g/cm ³	ASTM D792
--	1060	kg/m ³	ISO 1183 ¹
Melt Mass-Flow Rate (MFR) (220°C/10.0 kg)	20	g/10 min	ASTM D1238
Melt volume-flow rate (220°C/10.0 kg)	21.2	cm ³ /10min	ISO 1133 ²
Molding Shrinkage - Flow (3.20 mm)	0.40 to 0.70	%	ASTM D955
Water Absorption (Saturation)	0.31	%	ISO 62 ³
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness (R-Scale)	113		ASTM D785
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus			
3.20 mm ⁴	2380	MPa	ASTM D638
--	2500	MPa	ISO 527-2 ⁵
Tensile Strength			
Yield, 3.20 mm ⁶	53.0	MPa	ASTM D638
Yield	50.0	MPa	ISO 527-2 ⁷
Tensile Strain			
Yield	6.0	%	ISO 527-2 ⁸
Break, 3.20 mm ⁹	> 10	%	ASTM D638
Nominal strain at break	9.0	%	ISO 527-2 ¹⁰
Flexural Modulus ¹¹ (3.20 mm)	2790	MPa	ASTM D790
Flexural Strength ¹² (3.20 mm)	86.3	MPa	ASTM D790
Impact	Nominal Value	Unit	Test Method

Charpy notched impact strength			ISO 179/1eA ¹³
-30°C	6.00	kJ/m ²	
23°C	15.4	kJ/m ²	
Charpy impact strength			ISO 179/1eU ¹⁴
-30°C	48.2	kJ/m ²	
23°C	78.6	kJ/m ²	
Notched Izod Impact			ASTM D256
-30°C, 3.20 mm	59	J/m	
-30°C, 6.40 mm	78	J/m	
23°C, 3.20 mm	220	J/m	
23°C, 6.40 mm	200	J/m	
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			ASTM D648
0.45 MPa, Unannealed, 6.40 mm	90.0	°C	
1.8 MPa, Unannealed, 6.40 mm	87.0	°C	
Glass Transition Temperature ¹⁵	100	°C	ISO 11357-2 ¹⁶
Vicat Softening Temperature			
--	95.0	°C	ASTM D1525 ¹⁷
50°C/h, B (50N)	95.2	°C	ISO 306 ¹⁸
CLTE			ISO 11359-2 ¹⁹
Flow	8.4E-5	cm/cm/°C	
Transverse	9.8E-5	cm/cm/°C	
RTI Elec	60.0	°C	UL 746
RTI Imp	60.0	°C	UL 746
RTI Str	60.0	°C	UL 746
Electrical	Nominal Value	Unit	Test Method
Volume Resistivity	1.0E+15	ohms · cm	ASTM D257
Dielectric Strength	35	kV/mm	ASTM D149
Arc Resistance	PLC 5		ASTM D495
Comparative Tracking Index (CTI)	PLC 0		UL 746
High Amp Arc Ignition (HAI)			UL 746
1.50 mm	PLC 0		
3.00 mm	PLC 0		
High Voltage Arc Tracking Rate (HVTR)	PLC 2		UL 746
Hot-wire Ignition (HWI)			UL 746
1.50 mm	PLC 4		
3.00 mm	PLC 3		
Flammability	Nominal Value	Unit	Test Method
Flame Rating	HB		UL 94
Burning Behav. at thickness h (3.20 mm, UL)	HB		ISO 1210 ²⁰
Injection	Nominal Value	Unit	

Drying Temperature	80.0	°C
Drying Time	2.0 to 4.0	hr
Suggested Max Moisture	> 0.010	%
Rear Temperature	180 to 200	°C
Middle Temperature	190 to 210	°C
Front Temperature	200 to 220	°C
Nozzle Temperature	200 to 230	°C
Processing (Melt) Temp	210 to 240	°C
Mold Temperature	40.0 to 70.0	°C
Back Pressure	29.4 to 58.8	MPa
Screw Speed	30 to 60	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.	1.0 mm/min
5.	Tested in accordance with ISO 10350. 23°C/50%r.h. unless otherwise noted.
6.	50 mm/min
7.	Tested in accordance with ISO 10350. 23°C/50%r.h. unless otherwise noted.
8.	Tested in accordance with ISO 10350. 23°C/50%r.h. unless otherwise noted.
9.	50 mm/min
10.	Tested in accordance with ISO 10350. 23°C/50%r.h. unless otherwise noted.
11.	15 mm/min
12.	15 mm/min
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.	Rate A (50°C/h), Loading 2 (50 N)

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.

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