LG ABS SG175

Acrylonitrile Butadiene Styrene

LG Chem Ltd.

Message:

Description
Super Surface Gloss
Application
Electric&Electronic Products

General Information			
UL YellowCard	E67171-248404	E248280-462762	
Features	High Gloss		
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/cm³	ASTM D792
--	1050	kg/m³	ISO 1183 [1]
Melt Mass-Flow Rate (MFR) (220°C/10.0 kg)	33	g/10 min	ASTM D1238
Melt volume-flow rate (220°C/10.0 kg)	33.3	cm³/10min	ISO 1133 [2]
Molding Shrinkage - Flow (3.20 mm)	0.40 to 0.70	%	ASTM D955
Water Absorption (Saturation)	0.20	%	ISO 62 [3]
Hardness	**Nominal Value**	**Unit**	**Test Method**
Rockwell Hardness (R-Scale)	110		ASTM D785
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile modulus	2500	MPa	ISO 527-2 [4]
Tensile Strength			
Yield, 3.20 mm [5]	49.0	MPa	ASTM D638
Yield	45.0	MPa	ISO 527-2 [6]
Tensile Strain			
Yield	6.0	%	ISO 527-2 [7]
Break, 3.20 mm [8]	30	%	ASTM D638
Nominal strain at break	15	%	ISO 527-2 [9]
Flexural Modulus [10] (3.20 mm)	2600	MPa	ASTM D790
Flexural Strength [11] (3.20 mm)	78.5	MPa	ASTM D790
Impact	**Nominal Value**	**Unit**	**Test Method**
Charpy notched impact strength			ISO 179/1eA [12]
-30°C	6.40	kJ/m²	

23°C	17.2	kJ/m²	
Charpy impact strength			ISO 179/1eU [13]
-30°C	48.4	kJ/m²	
23°C	No Break		
Notched Izod Impact			ASTM D256
23°C, 3.20 mm	23	J/m	
23°C, 6.40 mm	200	J/m	
Thermal	**Nominal Value**	**Unit**	**Test Method**
Deflection Temperature Under Load (1.8 MPa, Unannealed, 6.40 mm)	86.0	°C	ASTM D648
Glass Transition Temperature [14]	110	°C	ISO 11357-2 [15]
Vicat Softening Temperature			
--	95.0	°C	ASTM D1525 [16]
50°C/h, B (50N)	95.9	°C	ISO 306 [17]
CLTE			ISO 11359-2 [18]
Flow	8.3E-5	cm/cm/°C	
Transverse	7.1E-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**
Surface resistivity	> 1.0E+15	ohms	IEC 60093 [19]
Volume Resistivity			
--	1.0E+16	ohms·cm	ASTM D257
--	> 1.0E+13	ohms·m	IEC 60093 [20]
Dielectric Strength			
--	28	kV/mm	ASTM D149
--	45	kV/mm	IEC 60243-1 [21]
Arc Resistance	PLC 6		ASTM D495
Comparative Tracking Index (CTI)	PLC 0		UL 746
High Amp Arc Ignition (HAI) (1.50 mm)	PLC 2		UL 746
High Voltage Arc Tracking Rate (HVTR)	PLC 1		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			UL 94
--	HB		
1.50 mm	HB		
3.00 mm	HB		
Burning Behav. at thickness h (3.20 mm, UL)	HB		ISO 1210 [22]
Injection	**Nominal Value**	**Unit**	

Drying Temperature	79.4 to 90.6	°C
Drying Time	2.0 to 3.0	hr
Rear Temperature	191 to 210	°C
Middle Temperature	199 to 221	°C
Front Temperature	210 to 229	°C
Nozzle Temperature	210 to 229	°C
Processing (Melt) Temp	221 to 241	°C
Mold Temperature	60.0 to 90.6	°C
Injection Pressure	68.6 to 97.9	MPa
Back Pressure	0.00 to 3.93	MPa
Screw Speed	40 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.	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.	15 mm/min
11.	15 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.	10 °C/min
15.	Tested in accordance with ISO 10350. 23°C/50%r.h. unless otherwise noted.
16.	Rate A (50°C/h), Loading 2 (50 N)

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.

Recommended distributors for this material

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