LG ABS TR558A

Acrylonitrile Butadiene Styrene

LG Chem Ltd.

UL IDES | Prospector

Product Description
Description Transparency, General Purpose
Application Electric/Electronic Products

General		
Material Status	• Commercial: Active	
Availability	• Asia Pacific • Europe	• North America • South America
Features	• General Purpose	
Uses	• Electrical/Electronic Applications	
RoHS Compliance	• RoHS Compliant	
UL File Number	• E67171	
Appearance	• Clear/Transparent	

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Specific Gravity	1.09	1.09 g/cm³	ASTM D792
Melt Mass-Flow Rate (MFR) (220°C/10.0 kg)	25 g/10 min	25 g/10 min	ASTM D1238
Mechanical	**Nominal Value (English)**	**Nominal Value (SI)**	**Test Method**
Tensile Strength [2] (Yield, 0.126 in (3.20 mm))	7180 psi	49.5 MPa	ASTM D638
Tensile Elongation [2]			ASTM D638
Break, 0.126 in (3.20 mm)	34 %	34 %	
Flexural Modulus [3] (0.126 in (3.20 mm))	353000 psi	2430 MPa	ASTM D790
Flexural Strength [3] (0.126 in (3.20 mm))	11700 psi	80.4 MPa	ASTM D790
Impact	**Nominal Value (English)**	**Nominal Value (SI)**	**Test Method**
Notched Izod Impact			ASTM D256
73°F (23°C), 0.126 in (3.20 mm)	2.2 ft·lb/in	120 J/m	
73°F (23°C), 0.252 in (6.40 mm)	2.4 ft·lb/in	130 J/m	
Hardness	**Nominal Value (English)**	**Nominal Value (SI)**	**Test Method**
Rockwell Hardness (R-Scale)	113	113	ASTM D785
Thermal	**Nominal Value (English)**	**Nominal Value (SI)**	**Test Method**
Deflection Temperature Under Load			ASTM D648
264 psi (1.8 MPa), Unannealed, 0.252 in (6.40 mm)	183 °F	84.0 °C	
RTI Elec			UL 746
0.0591 in (1.50 mm)	140 °F	60.0 °C	
0.126 in (3.20 mm)	140 °F	60.0 °C	
RTI Imp			UL 746
0.0591 in (1.50 mm)	140 °F	60.0 °C	
0.126 in (3.20 mm)	140 °F	60.0 °C	
RTI Str			UL 746
0.0591 in (1.50 mm)	140 °F	60.0 °C	
0.126 in (3.20 mm)	140 °F	60.0 °C	
Electrical	**Nominal Value (English)**	**Nominal Value (SI)**	**Test Method**
Volume Resistivity	1.0E+16 ohm·cm	1.0E+16 ohm·cm	IEC 60093
Electric Strength	710 V/mil	28 kV/mm	IEC 60243-1
Arc Resistance	PLC 6	PLC 6	ASTM D495
Comparative Tracking Index (CTI)	PLC 1	PLC 1	UL 746
High Amp Arc Ignition (HAI)			UL 746
0.0591 in (1.50 mm)	PLC 3	PLC 3	
0.126 in (3.20 mm)	PLC 3	PLC 3	
High Voltage Arc Tracking Rate (HVTR)	PLC 0	PLC 0	UL 746

Revision History
Document Created: Monday, July 30, 2012
Added to Prospector: February, 2003
Last Updated: 4/11/2012

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Electrical	Nominal Value (English)	Nominal Value (SI)	Test Method
Hot-wire Ignition (HWI)			UL 746
0.0591 in (1.50 mm)	PLC 2	PLC 2	
0.118 in (3.00 mm)	PLC 3	PLC 3	
Flammability	**Nominal Value (English)**	**Nominal Value (SI)**	**Test Method**
Flame Rating			UL 94
0.0630 in (1.60 mm)	HB	HB	
0.126 in (3.20 mm)	HB	HB	
Optical	**Nominal Value (English)**	**Nominal Value (SI)**	**Test Method**
Transmittance	90.0 %	90.0 %	ASTM D1003
Haze	2.0 %	2.0 %	ASTM D1003

Injection	Nominal Value (English)	Nominal Value (SI)
Drying Temperature	176 to 194 °F	80.0 to 90.0 °C
Drying Time	2.0 to 4.0 hr	2.0 to 4.0 hr
Suggested Max Moisture	< 0.010 %	< 0.010 %
Rear Temperature	356 to 392 °F	180 to 200 °C
Middle Temperature	374 to 410 °F	190 to 210 °C
Front Temperature	392 to 428 °F	200 to 220 °C
Nozzle Temperature	392 to 446 °F	200 to 230 °C
Processing (Melt) Temp	392 to 446 °F	200 to 230 °C
Mold Temperature	104 to 140 °F	40.0 to 60.0 °C
Back Pressure	4270 to 8530 psi	29.4 to 58.8 MPa
Screw Speed	30 to 60 rpm	30 to 60 rpm

Notes

[1] Typical properties: these are not to be construed as specifications.

[2] 2.0 in/min (50 mm/min)

[3] 0.59 in/min (15 mm/min)

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