

LG MABS TR551

LG Chem Ltd. - Methyl Methacrylate / ABS

Friday, May 24, 2019

General Information

Product Description

Description

- High Transparency, High Rigidity, High Hardness

Applications

- Electric & Electronic Products

General

Material Status	• Commercial: Active
Availability	<ul style="list-style-type: none"> • Asia Pacific • Europe • Latin America • North America
Features	<ul style="list-style-type: none"> • High Clarity • High Hardness • High Rigidity
Uses	• Electrical/Electronic Applications
RoHS Compliance	• RoHS Compliant
Appearance	• Clear/Transparent
Processing Method	• Injection Molding

ASTM & ISO Properties¹

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity ²	1.12	g/cm ³	ASTM D792
Melt Mass-Flow Rate (MFR) (220°C/10.0 kg)	8.0	g/10 min	ASTM D1238
Molding Shrinkage - Flow (23°C, 3.20 mm, Injection Molded)	0.40 to 0.70	%	ASTM D955
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus ³ (23°C, 3.20 mm, Injection Molded)	2650	MPa	ASTM D638
Tensile Strength ³			ASTM D638
Yield, 23°C, 3.20 mm, Injection Molded	59.0	MPa	
Tensile Elongation ³			ASTM D638
Yield, 23°C, 3.20 mm, Injection Molded	> 5.0	%	
Tensile Elongation ³			ASTM D638
Break, 23°C, 3.20 mm, Injection Molded	> 15	%	
Flexural Modulus ⁴ (23°C, 3.20 mm, Injection Molded)	2850	MPa	ASTM D790
Flexural Strength ⁴ (23°C, 3.20 mm, Injection Molded)	96.0	MPa	ASTM D790
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact			ASTM D256
-30°C, 3.20 mm, Injection Molded	40	J/m	
-30°C, 6.40 mm, Injection Molded	40	J/m	
23°C, 3.20 mm, Injection Molded	130	J/m	
23°C, 6.40 mm, Injection Molded	120	J/m	
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness (R-Scale, 23°C, Injection Molded)	117		ASTM D785
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load ⁵			ASTM D648
1.8 MPa, Unannealed, 6.40 mm, Injection Molded	87.0	°C	

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Thermal	Nominal Value	Unit	Test Method
Vicat Softening Temperature	95.0	°C	ASTM D1525 ⁶
RTI Elec	50.0	°C	UL 746
RTI Imp	50.0	°C	UL 746
RTI Str	50.0	°C	UL 746
Flammability	Nominal Value	Unit	Test Method
Flame Rating			UL 94
1.5 mm		HB	
3.0 mm		HB	
Optical	Nominal Value	Unit	Test Method
Transmittance (3200 µm, Injection Molded)	90.0	%	ASTM D1003
Haze (Injection Molded)	1.90	%	ASTM D1003

Processing Information

Injection	Nominal Value	Unit
Drying Temperature	80 to 90	°C
Drying Time	2.0 to 4.0	hr
Rear Temperature	190 to 210	°C
Middle Temperature	200 to 220	°C
Front Temperature	210 to 230	°C
Nozzle Temperature	210 to 240	°C
Processing (Melt) Temp	210 to 240	°C
Mold Temperature	40 to 70	°C
Back Pressure	29.4 to 58.8	MPa
Screw Speed	< 80	rpm

Injection Notes

Minimum Moisture Content: 0.01%

Notes

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

² 23°C

³ 50 mm/min

⁴ 15 mm/min

⁵ Edgewise

⁶ Rate A (50°C/h), Loading 2 (50 N)