

LG MABS TR551

Methyl Methacrylate / ABS

LG Chem Ltd.

PROSPECTOR®

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Technical Data

Product Description

Description

- High Transparency, High Rigidity, High Hardness

Applications

- Electric & Electronic Products

General

Material Status	• Commercial: Active
Literature ¹	• Technical Datasheet (English)
UL Yellow Card ²	• E67171-100029194
Search for UL Yellow Card	• LG Chem Ltd.
Availability	• Asia Pacific • Europe • Latin America • North America
Features	• High Clarity • High Hardness • High Rigidity
Uses	• Electrical/Electronic Applications
RoHS Compliance	• RoHS Compliant
Appearance	• Clear/Transparent
Processing Method	• Injection Molding

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density / Specific Gravity ⁴	1.12	1.12 g/cm ³	ASTM D792
Melt Mass-Flow Rate (MFR) (220°C/10.0 kg)	8.0 g/10 min	8.0 g/10 min	ASTM D1238
Molding Shrinkage - Flow			ASTM D955
73°F (23°C), 0.126 in (3.20 mm), Injection Molded	4.0E-3 to 7.0E-3 in/in	0.40 to 0.70 %	

Mechanical	Nominal Value (English)	Nominal Value (SI)	Test Method
Tensile Modulus ⁵			ASTM D638
73°F (23°C), 0.126 in (3.20 mm), Injection Molded	384000 psi	2650 MPa	
Tensile Strength ⁵			ASTM D638
Yield, 73°F (23°C), 0.126 in (3.20 mm), Injection Molded	8560 psi	59.0 MPa	
Tensile Elongation ⁵			ASTM D638
Yield, 73°F (23°C), 0.126 in (3.20 mm), Injection Molded	> 5.0 %	> 5.0 %	
Break, 73°F (23°C), 0.126 in (3.20 mm), Injection Molded	> 15 %	> 15 %	
Flexural Modulus ⁶			ASTM D790
73°F (23°C), 0.126 in (3.20 mm), Injection Molded	413000 psi	2850 MPa	
Flexural Strength ⁶			ASTM D790
73°F (23°C), 0.126 in (3.20 mm), Injection Molded	13900 psi	96.0 MPa	

Impact	Nominal Value (English)	Nominal Value (SI)	Test Method
Notched Izod Impact			ASTM D256
-22°F (-30°C), 0.126 in (3.20 mm), Injection Molded	0.75 ft·lb/in	40 J/m	
-22°F (-30°C), 0.252 in (6.40 mm), Injection Molded	0.75 ft·lb/in	40 J/m	
73°F (23°C), 0.126 in (3.20 mm), Injection Molded	2.3 ft·lb/in	130 J/m	
73°F (23°C), 0.252 in (6.40 mm), Injection Molded	2.2 ft·lb/in	120 J/m	



Hardness	Nominal Value (English)	Nominal Value (SI)	Test Method
Rockwell Hardness			ASTM D785
R-Scale, 73°F (23°C), Injection Molded	117	117	
Thermal	Nominal Value (English)	Nominal Value (SI)	Test Method
Deflection Temperature Under Load ⁷			ASTM D648
264 psi (1.8 MPa), Unannealed, 0.252 in (6.40 mm), Injection Molded	189 °F	87.0 °C	
Vicat Softening Temperature	203 °F	95.0 °C	ASTM D1525 ⁸
RTI Elec	122 °F	50.0 °C	UL 746
RTI Imp	122 °F	50.0 °C	UL 746
RTI Str	122 °F	50.0 °C	UL 746
Flammability	Nominal Value (English)	Nominal Value (SI)	Test Method
Flame Rating			UL 94
0.06 in (1.5 mm)	HB	HB	
0.12 in (3.0 mm)	HB	HB	
Optical	Nominal Value (English)	Nominal Value (SI)	Test Method
Light Transmittance			ASTM D1003
126.0 mil (3200 µm), Injection Molded	90.0 %	90.0 %	
Haze (Injection Molded)	1.90 %	1.90 %	ASTM D1003
Injection	Nominal Value (English)	Nominal Value (SI)	
Drying Temperature	176 to 194 °F	80 to 90 °C	
Drying Time	2.0 to 4.0 hr	2.0 to 4.0 hr	
Rear Temperature	374 to 410 °F	190 to 210 °C	
Middle Temperature	392 to 428 °F	200 to 220 °C	
Front Temperature	410 to 446 °F	210 to 230 °C	
Nozzle Temperature	410 to 464 °F	210 to 240 °C	
Processing (Melt) Temp	410 to 464 °F	210 to 240 °C	
Mold Temperature	104 to 158 °F	40 to 70 °C	
Back Pressure	4270 to 8530 psi	29.4 to 58.8 MPa	
Screw Speed	< 80 rpm	< 80 rpm	

Injection Notes

Minimum Moisture Content: 0.01%

Notes

¹ These links provide you with access to supplier literature. We work hard to keep them up to date; however you may find the most current literature from the supplier.

² A UL Yellow Card contains UL-verified flammability and electrical characteristics. UL Prospector continually works to link Yellow Cards to individual plastic materials in Prospector, however this list may not include all of the appropriate links. It is important that you verify the association between these Yellow Cards and the plastic material found in Prospector. For a complete listing of Yellow Cards, visit the UL Yellow Card Search.

³ Typical properties: these are not to be construed as specifications.

⁴ 23°C

⁵ 2.0 in/min (50 mm/min)

⁶ 0.59 in/min (15 mm/min)

⁷ Edgewise

⁸ Rate A (50°C/h), Loading 2 (50 N)



Where to Buy

Supplier

LG Chem Ltd.

Englewood Cliffs, NJ USA
Telephone: 201-816-2302
Web: <http://www.chemwide.com/>

Distributor

CCC Plastics

Telephone: 800-465-6917
Web: <https://www.ccc-group.com/>
Availability: Canada

Channel Prime Alliance

Telephone: 800-247-8038
Web: <http://www.channelpa.com/>
Availability: North America

Chase Plastic Services, Inc.

Chase Plastics Services is a North American distributor with representatives throughout the region. Please find your rep here: <http://www.chaseplastics.com/contact/locations>
Telephone: 800-232-4273
Web: <http://www.chaseplastics.com/>
Availability: North America

Distrupol Ltd

Distrupol Ltd is a Pan European distribution company. Contact Distrupol Ltd for availability of individual products by country.
Telephone: 08452003040
Web: <http://www.distrupol.com/>
Availability: Belgium, Denmark, Finland, Luxembourg, Netherlands, Norway, Sweden

Resin Resource, Inc.

Telephone: 877-652-3431
Web: <http://www.resinresourceinc.com/>
Availability: North America

RESINEX Group

RESINEX is a Pan European distribution company. Contact RESINEX for availability of individual products by country.
Telephone: +32-14-672511
Web: <http://www.resinex.com/>
Availability: Europe

