



LG ABS TR552

LG Chem Ltd. - Acrylonitrile Butadiene Styrene

Thursday, June 27, 2024

General Information

Product Description

Description

TR552 is a Transparent ABS product for injection molding, designed to have transparency, good chemical resistance, and high impact strength.

Key Features

Transparency, Chemical Resistance, High Impact Strength

Application

Electrical/Electronic Products, Miscellaneous Goods

General

Material Status	• Commercial: Active
Availability	• Asia Pacific • Europe • Latin America • North America
Features	• Chemical Resistant • High Clarity • High Impact Resistance
Uses	• Electrical/Electronic Applications
RoHS Compliance	• RoHS Compliant
Appearance	• Clear/Transparent
Processing Method	• Injection Molding

ASTM & ISO Properties ¹

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity ²	1.06	g/cm ³	ASTM D792
Melt Mass-Flow Rate (MFR) (220°C/10.0 kg)	11	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 Strength ³			ASTM D638
Yield, 23°C, 3.20 mm, Injection Molded	41.0	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, 6.40 mm, Injection Molded)	1850	MPa	ASTM D790
Flexural Strength ⁴ (23°C, 6.40 mm, Injection Molded)	63.0	MPa	ASTM D790
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact			ASTM D256
-30°C, 3.20 mm, Injection Molded	80	J/m	
-30°C, 6.40 mm, Injection Molded	80	J/m	
23°C, 3.20 mm, Injection Molded	220	J/m	
23°C, 6.40 mm, Injection Molded	210	J/m	
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness (R-Scale, 23°C, Injection Molded)	100		ASTM D785

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Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load ⁵ 0.45 MPa, Unannealed, 6.40 mm, Injection Molded	90.0	°C	ASTM D648
Deflection Temperature Under Load ⁵ 0.45 MPa, Annealed, 6.40 mm	93.0	°C	ASTM D648
Deflection Temperature Under Load ⁵ 1.8 MPa, Unannealed, 6.40 mm, Injection Molded	82.0	°C	ASTM D648
Deflection Temperature Under Load ⁵ 1.8 MPa, Annealed, 6.40 mm, Injection Molded	88.0	°C	ASTM D648
Vicat Softening Temperature	90.0	°C	ASTM D1525 ⁶
Optical	Nominal Value	Unit	Test Method
Light Transmittance (3200 µm, Injection Molded)	90.0	%	ASTM D1003
Haze (Injection Molded)	2.20	%	ASTM D1003

Processing Information

Injection	Nominal Value	Unit
Drying Temperature	70 to 80	°C
Drying Time	3.0 to 4.0	hr
Processing (Melt) Temp	200 to 250	°C
Mold Temperature	40 to 80	°C
Screw Speed	30 to 60	rpm

Notes

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

² 23°C

³ 50 mm/min

⁴ 10 mm/min

⁵ Edgewise

⁶ Rate A (50°C/h), Loading 2 (50 N)