

LG ABS HI121H

LG Chem Ltd. - Acrylonitrile Butadiene Styrene

Tuesday, November 8, 2022

General Information

Product Description

Description

- Well balanced mechanical properties

Application

- Electric/electronic products, miscellaneous goods

General

Material Status	• Commercial: Active		
Availability	• Asia Pacific • Europe	• Latin America • North America	
Uses	• Electrical/Electronic Applications		
Automotive Specifications	• GM GMP.ABS.002	• GM GMW15572P-ABS-T1	• IMDS ID 9607651
Processing Method	• Injection Molding		

ASTM & ISO Properties ¹

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity ²	1.05	g/cm ³	ASTM D792
Melt Mass-Flow Rate (MFR) (220°C/10.0 kg)	22	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)	2350	MPa	ASTM D638
Tensile Strength ³			ASTM D638
Yield, 23°C, 3.20 mm, Injection Molded	49.0	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	> 10	%	
Flexural Modulus ⁴ (23°C, 3.20 mm, Injection Molded)	2550	MPa	ASTM D790
Flexural Strength ⁴ (23°C, 3.20 mm, Injection Molded)	78.0	MPa	ASTM D790
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact			ASTM D256
-30°C, 3.20 mm, Injection Molded	90	J/m	
-30°C, 6.40 mm, Injection Molded	90	J/m	
23°C, 3.20 mm, Injection Molded	220	J/m	
23°C, 6.40 mm, Injection Molded	220	J/m	
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness (R-Scale, 23°C, Injection Molded)	110		ASTM D785
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			ASTM D648
1.8 MPa, Unannealed, 6.40 mm, Injection Molded	85.0	°C	
Vicat Softening Temperature	92.0	°C	ASTM D1525 ⁵
RTI Elec	95.0	°C	UL 746B

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Thermal	Nominal Value	Unit	Test Method
RTI Imp	95.0	°C	UL 746B
RTI Str	95.0	°C	UL 746B
Flammability	Nominal Value	Unit	Test Method
Flame Rating			UL 94
1.5 mm	HB		
3.0 mm	HB		

Processing Information

Injection	Nominal Value	Unit
Drying Temperature	70 to 80	°C
Drying Time	2.0 to 4.0	hr
Rear Temperature	180 to 200	°C
Middle Temperature	190 to 210	°C
Front Temperature	200 to 220	°C
Nozzle Temperature	200 to 230	°C
Processing (Melt) Temp	210 to 240	°C
Mold Temperature	40 to 70	°C
Back Pressure	0.490 to 1.47	MPa
Screw Speed	30 to 60	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 Rate A (50°C/h), Loading 2 (50 N)