

LG ABS HI100H

LG Chem Ltd. - Acrylonitrile Butadiene Styrene

Saturday, July 20, 2019

General Information

Product Description

Description

- Very high impact strength at room & cold temperature

Application

- Helmet, pipe & fittings, miscellaneous goods

General

Material Status	• Commercial: Active		
Availability	• Asia Pacific • Europe	• Latin America • North America	
Features	• Low Temperature Impact Resistance	• Ultra High Impact Resistance	
Uses	• Fittings	• Piping	• Safety Helmets
Processing Method	• Injection Molding		

ASTM & ISO Properties ¹

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity ²	1.02	g/cm ³	ASTM D792
Melt Mass-Flow Rate (MFR) (220°C/10.0 kg)	10	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)	1660	MPa	ASTM D638
Tensile Strength ³			ASTM D638
Yield, 23°C, 3.20 mm, Injection Molded	39.0	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)	2000	MPa	ASTM D790
Flexural Strength ⁴ (23°C, 3.20 mm, Injection Molded)	62.0	MPa	ASTM D790
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact			ASTM D256
-30°C, 3.20 mm, Injection Molded	250	J/m	
-30°C, 6.40 mm, Injection Molded	250	J/m	
23°C, 3.20 mm, Injection Molded	460	J/m	
23°C, 6.40 mm, Injection Molded	440	J/m	
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness (R-Scale, 23°C, Injection Molded)	94		ASTM D785
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			ASTM D648
1.8 MPa, Unannealed, 6.40 mm, Injection Molded	84.0	°C	
Vicat Softening Temperature	92.0	°C	ASTM D1525 ⁵
RTI Elec	60.0	°C	UL 746

UL and the UL logo are trademarks of UL LLC © 2019. All Rights Reserved.

The information presented here was acquired by UL from the producer of the product or material or original information provider. However, UL assumes no responsibility or liability for the accuracy of the information contained on this website and strongly encourages that upon final product or material selection information is validated with the manufacturer. This website provides links to other websites owned by third parties. The content of such third party sites is not within our control, and we cannot and will not take responsibility for the information or content.

LG ABS HI100H

LG Chem Ltd. - Acrylonitrile Butadiene Styrene

Thermal	Nominal Value	Unit	Test Method
RTI Imp	60.0	°C	UL 746
RTI Str	60.0	°C	UL 746

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	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	29.4 to 58.8	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)