



# LG ABS HI121

LG Chem Ltd. - Acrylonitrile Butadiene Styrene

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## General Information

### Product Description

#### Description

HI121 is an ABS product for injection molding, designed to have impact resistance.

#### Key Features

Impact Resistance

#### Application

Pipe, Irrigation Part, Electrical/Electronic Products, Miscellaneous Goods

### General

Material Status	• Commercial: Active		
Availability	• Asia Pacific • Europe	• Latin America • North America	
Features	• Good Impact Resistance		
Uses	• Electrical/Electronic Applications	• Irrigation Applications	• Piping
Processing Method	• Injection Molding		

## ASTM & ISO Properties <sup>1</sup>

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity <sup>2</sup>	1.04	g/cm <sup>3</sup>	ASTM D792
Melt Mass-Flow Rate (MFR) (220°C/10.0 kg)	21	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 <sup>3</sup>			ASTM D638
Yield, 23°C, 3.20 mm, Injection Molded	45.0	MPa	
Tensile Elongation <sup>3</sup>			ASTM D638
Break, 23°C, 3.20 mm, Injection Molded	> 10	%	
Flexural Modulus <sup>4</sup> (23°C, 6.40 mm, Injection Molded)	2450	MPa	ASTM D790
Flexural Strength <sup>4</sup> (23°C, 6.40 mm, Injection Molded)	73.0	MPa	ASTM D790
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact			ASTM D256
23°C, 3.20 mm, Injection Molded	340	J/m	
23°C, 6.40 mm, Injection Molded	320	J/m	
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness (R-Scale, 23°C, Injection Molded)	106		ASTM D785
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load <sup>5</sup>			ASTM D648
1.8 MPa, Unannealed, 6.40 mm, Injection Molded	85.0	°C	
Vicat Softening Temperature	93.0	°C	ASTM D1525 <sup>6</sup>

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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

- <sup>1</sup> Typical properties: these are not to be construed as specifications.
- <sup>2</sup> 23°C
- <sup>3</sup> 50 mm/min
- <sup>4</sup> 10 mm/min
- <sup>5</sup> Edgewise
- <sup>6</sup> Rate A (50°C/h), Loading 2 (50 N)