

# LG ABS HI121

Acrylonitrile Butadiene Styrene

LG Chem Ltd.



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## Technical Data

### General

Material Status	<ul style="list-style-type: none"><li>Commercial: Active</li></ul>
Literature <sup>1</sup>	<ul style="list-style-type: none"><li>Technical Datasheet (English)</li><li>Processing (English)</li><li>Processing - Injection Molding Guide (English)</li></ul>
UL Yellow Card <sup>2</sup>	<ul style="list-style-type: none"><li>E67171-248368</li><li>E248280-100213792</li></ul>
Search for UL Yellow Card	<ul style="list-style-type: none"><li>LG Chem Ltd.</li><li>LG ABS</li></ul>
Availability	<ul style="list-style-type: none"><li>Asia Pacific</li><li>Europe</li><li>North America</li><li>South America</li></ul>
Features	<ul style="list-style-type: none"><li>High Impact Resistance</li></ul>
Uses	<ul style="list-style-type: none"><li>Electrical/Electronic Applications</li></ul>
Processing Method	<ul style="list-style-type: none"><li>Injection Molding</li></ul>
Multi-Point Data	<ul style="list-style-type: none"><li>Specific Heat vs. Temperature (ISO 11403-2)</li></ul>

Physical	Nominal Value Unit	Test Method
Specific Gravity	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	0.40 to 0.70 %	ASTM D955
Dimensional Stability	0.0 %	ASTM D1042
Mechanical	Nominal Value Unit	Test Method
Tensile Modulus <sup>4</sup> (3.20 mm)	2080 MPa	ASTM D638
Tensile Strength <sup>5</sup> (Yield, 3.20 mm)	45.1 MPa	ASTM D638
Tensile Elongation <sup>5</sup> (Break, 3.20 mm)	40 %	ASTM D638
Flexural Modulus <sup>6</sup> (3.20 mm)	2450 MPa	ASTM D790
Flexural Strength <sup>6</sup> (Yield, 3.20 mm)	72.6 MPa	ASTM D790
Impact	Nominal Value Unit	Test Method
Notched Izod Impact		ASTM D256
-30°C, 3.20 mm	130 J/m	
-30°C, 6.40 mm	130 J/m	
23°C, 3.20 mm	340 J/m	
23°C, 6.40 mm	310 J/m	
Hardness	Nominal Value Unit	Test Method
Rockwell Hardness (R-Scale)	108	ASTM D785
Thermal	Nominal Value Unit	Test Method
Deflection Temperature Under Load		ASTM D648
0.45 MPa, Unannealed, 6.40 mm	91.0 °C	
1.8 MPa, Unannealed, 6.40 mm	87.0 °C	
Vicat Softening Temperature	93.0 °C	ASTM D1525 <sup>7</sup>
RTI Elec		UL 746
1.50 mm	95.0 °C	
3.00 mm	100 °C	
RTI Imp		UL 746
1.50 mm	95.0 °C	
3.00 mm	100 °C	
RTI Str		UL 746
1.50 mm	95.0 °C	
3.00 mm	100 °C	

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Electrical	Nominal Value Unit	Test Method
Volume Resistivity	1.0E+15 ohm·cm	ASTM D257
Dielectric Strength	27 kV/mm	ASTM D149
Arc Resistance	PLC 6	ASTM D495
Comparative Tracking Index (CTI)	PLC 0	UL 746
High Amp Arc Ignition (HAI)		UL 746
1.50 mm	PLC 0	
3.00 mm	PLC 1	
High Voltage Arc Tracking Rate (HVTR)	PLC 2	UL 746
Hot-wire Ignition (HWI)		UL 746
1.50 mm	PLC 3	
3.00 mm	PLC 3	

Flammability	Nominal Value Unit	Test Method
Flame Rating		UL 94
1.50 mm	HB	
3.00 mm	HB	

Injection	Nominal Value Unit
Drying Temperature	80.0 °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	40.0 to 70.0 °C
Back Pressure	29.4 to 58.8 MPa
Screw Speed	30 to 60 rpm

## Notes

<sup>1</sup> 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.

<sup>2</sup> A UL Yellow Card contains UL-verified flammability and electrical characteristics. UL IDES 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.

<sup>3</sup> Typical properties: these are not to be construed as specifications.

<sup>4</sup> 1.0 mm/min

<sup>5</sup> 50 mm/min

<sup>6</sup> 15 mm/min

<sup>7</sup> Rate A (50°C/h), Loading 2 (50 N)

# LG ABS HI121

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## Where to Buy

### Supplier

#### LG Chem Ltd.

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

### Distributor

#### Biesterfeld Plastic GmbH

*Biesterfeld Plastic GmbH is a Pan European distribution company. Contact Biesterfeld Plastic GmbH for availability of individual products by country.*

**Telephone:** +49-40-32008-0

**Web:** <http://www.biesterfeld-plastic.com/>

**Availability:** Algeria, Austria, Belgium, Bosnia and Herzegovina, Bulgaria, Croatia, Cyprus, Czech Republic, Egypt, France, Germany, Greece, Hungary, Ireland, Italy, Libyan Arab Jamahiriya, Luxembourg, Mauritania, Morocco, Netherlands, Poland, Portugal, Romania, Serbia, Slovakia, Slovenia, Spain, Switzerland, Turkey, United Kingdom

#### CCC Plastics

**Telephone:** 800-465-6917

**Web:** <http://www.cccplastics.com/>

**Availability:** Canada

#### 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

#### Polymer Technology & Services, LLC

**Telephone:** 800-475-1701

**Web:** <http://www.ptslc.com/>

**Availability:** North America

#### Primeline Polymers

**Telephone:** 714-745-3617

**Web:** <http://www.primelinepolymers.com/>

**Availability:** North America

#### 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

#### SNETOR Distribution

**Telephone:** +33-1-4904-8888

**Availability:** France

#### Southland Polymers

**Telephone:** 877-882-3519

**Web:** <http://www.southlandpolymers.com/>

**Availability:** Mexico, United States



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Prospector is a searchable online database that includes 85,000 data sheets from 875 manufacturers and 44,000 UL yellow cards. Each data sheet includes property, processing and supplier contact information. Prospector is relied on by nearly 400,000 design engineers and plastics processors. Using Prospector, they save time with plastic material selection by quickly and easily referencing technical information critical to the success of their products.

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– Birgit Elvardt Bader, Production Manager, Micotron

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**Automotive Plastics Search** – easily locate automotive approved plastics.

**Curve Data** – view, overlay and export curve data.



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– Kevin Chase, Owner & President, Chase Plastics



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