

# LG ABS HI121

Acrylonitrile Butadiene Styrene

LG Chem Ltd.

**PROSPECTOR**<sup>®</sup>

www.ulprospector.com

## Technical Data

### Product Description

#### Description

- Well balanced mechanical properties

#### Application

- Electric/electronic products, miscellaneous goods

### General

Material Status	• Commercial: Active
Literature <sup>1</sup>	• <a href="#">Technical Datasheet (English)</a>
UL Yellow Card <sup>2</sup>	• <a href="#">E248280-100213792</a>
Search for UL Yellow Card	• <a href="#">LG Chem Ltd.</a> • <a href="#">LG ABS</a>
Availability	• Asia Pacific • Europe • Latin America • North America
Uses	• Electrical/Electronic Applications
Processing Method	• Injection Molding
Multi-Point Data	• Specific Heat vs. Temperature (ISO 11403-2)

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density / Specific Gravity <sup>4</sup>	1.04	1.04 g/cm <sup>3</sup>	ASTM D792
Melt Mass-Flow Rate (MFR) (220°C/10.0 kg)	21 g/10 min	21 g/10 min	ASTM D1238
Molding Shrinkage - Flow 73°F (23°C), 0.126 in (3.20 mm)	4.0E-3 to 7.0E-3 in/in	0.40 to 0.70 %	ASTM D955

Mechanical	Nominal Value (English)	Nominal Value (SI)	Test Method
Tensile Modulus <sup>5</sup> 73°F (23°C), 0.126 in (3.20 mm)	312000 psi	2150 MPa	ASTM D638
Tensile Strength <sup>5</sup> Yield, 73°F (23°C), 0.126 in (3.20 mm)	6530 psi	45.0 MPa	ASTM D638
Tensile Elongation <sup>5</sup> Yield, 73°F (23°C), 0.126 in (3.20 mm) Break, 73°F (23°C), 0.126 in (3.20 mm)	> 5.0 % > 10 %	> 5.0 % > 10 %	ASTM D638
Flexural Modulus <sup>6</sup> 73°F (23°C), 0.126 in (3.20 mm)	355000 psi	2450 MPa	ASTM D790
Flexural Strength <sup>6</sup> 73°F (23°C), 0.126 in (3.20 mm)	10600 psi	73.0 MPa	ASTM D790

Impact	Nominal Value (English)	Nominal Value (SI)	Test Method
Notched Izod Impact			ASTM D256
-22°F (-30°C), 0.126 in (3.20 mm)	2.8 ft·lb/in	150 J/m	
-22°F (-30°C), 0.252 in (6.40 mm)	2.8 ft·lb/in	150 J/m	
73°F (23°C), 0.126 in (3.20 mm)	6.1 ft·lb/in	320 J/m	
73°F (23°C), 0.252 in (6.40 mm)	6.1 ft·lb/in	320 J/m	

Hardness	Nominal Value (English)	Nominal Value (SI)	Test Method
Rockwell Hardness (R-Scale)	108	108	ASTM D785

Thermal	Nominal Value (English)	Nominal Value (SI)	Test Method
Deflection Temperature Under Load 264 psi (1.8 MPa), Unannealed, 0.252 in (6.40 mm)	185 °F	85.0 °C	ASTM D648
Vicat Softening Temperature	199 °F	93.0 °C	ASTM D1525 <sup>7</sup>
RTI Elec	203 °F	95.0 °C	UL 746
RTI Imp	203 °F	95.0 °C	UL 746
RTI Str	203 °F	95.0 °C	UL 746



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Flammability	Nominal Value (English)	Nominal Value (SI)	Test Method
Flame Rating			UL 94
0.06 in (1.5 mm)	HB	HB	
0.12 in (3.0 mm)	HB	HB	

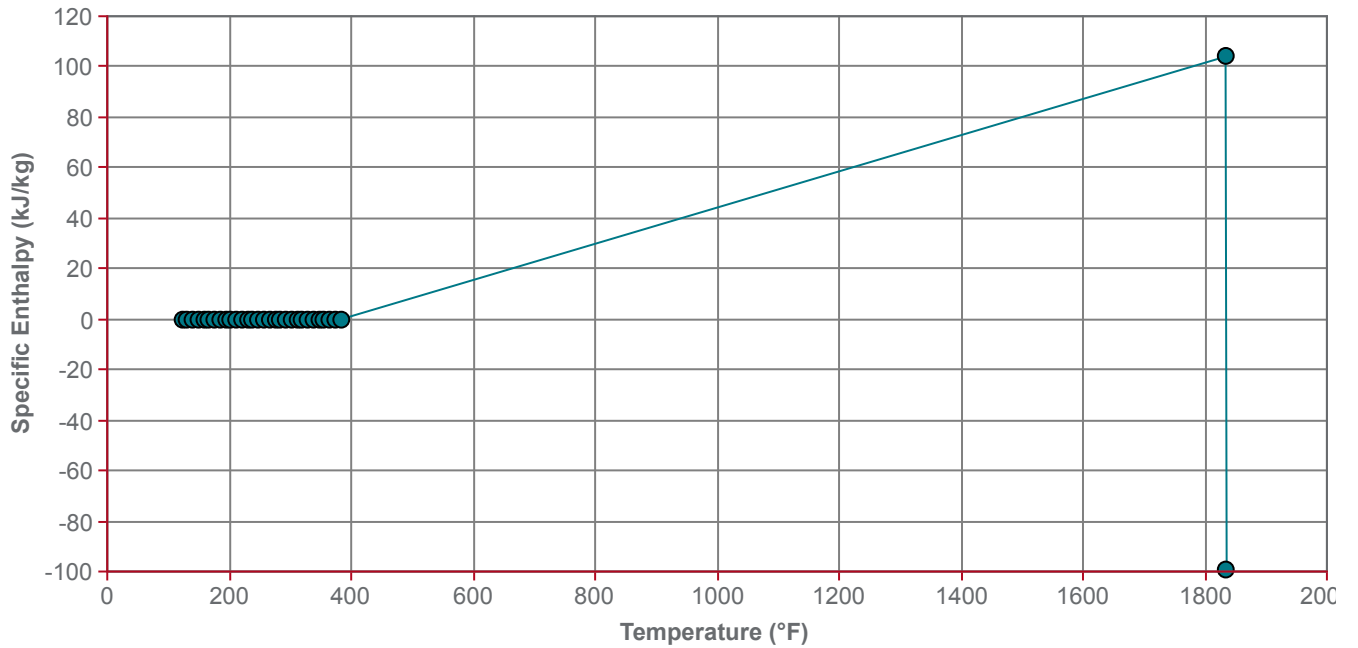
Injection	Nominal Value (English)	Nominal Value (SI)
Drying Temperature	158 to 176 °F	70 to 80 °C
Drying Time	2.0 to 4.0 hr	2.0 to 4.0 hr
Rear Temperature	356 to 392 °F	180 to 200 °C
Middle Temperature	374 to 410 °F	190 to 210 °C
Front Temperature	392 to 428 °F	200 to 220 °C
Nozzle Temperature	392 to 446 °F	200 to 230 °C
Processing (Melt) Temp	410 to 464 °F	210 to 240 °C
Mold Temperature	104 to 158 °F	40 to 70 °C
Back Pressure	71.1 to 213 psi	0.490 to 1.47 MPa
Screw Speed	30 to 60 rpm	30 to 60 rpm

### Injection Notes

Minimum Moisture Content: 0.01%



Specific Heat vs. Temperature (ISO 11403-2)



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### 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 Prospector 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> 23°C

<sup>5</sup> 2.0 in/min (50 mm/min)

<sup>6</sup> 0.59 in/min (15 mm/min)

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



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### Where to Buy

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#### Supplier

##### LG Chem Ltd.

Englewood Cliffs, NJ USA

Telephone: 201-816-2302

Web: <http://www.chemwide.com/>



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### Distributor

#### Amco Polymers

Telephone: 800-262-6685

Web: <http://www.amcopolymers.com/>

Availability: North America

#### 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

#### Channel Prime Alliance

Telephone: 800-247-8038

Web: <http://www.channelpa.com/>

Availability: North America

#### 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

#### Distrupol Ltd

*Distrupol Ltd is a Pan European distribution company. Contact Distrupol Ltd for availability of individual products by country.*

Telephone: 08452003040

Web: <http://www.distrupol.com/>

Availability: Belgium, Denmark, Finland, Luxembourg, Netherlands, Norway, Sweden

#### POLYMIX

Telephone: +33-3-8920-1380

Web: <http://www.polymix.eu/>

Availability: Belgium, Croatia, France, Luxembourg, Netherlands, Romania, Serbia, Slovenia, Spain, Tunisia

#### 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

#### Southland Polymers

*Southland Polymers - Full Service Engineering and Commodity Resin Distribution Since 1979*

Telephone: 562-921-0444

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

Availability: Central America, North America, South America

#### Telko Oy

*Telko Oy is a Pan European distribution company. Contact Telko Oy for availability of individual products by country.*

Telephone: +358-9-5211

Web: <http://www.telko.com/>

Availability: Belarus, Denmark, Estonia, Finland, Latvia, Lithuania, Norway, Poland, Sweden, Ukraine

