

# LG ABS HF380

Acrylonitrile Butadiene Styrene

LG Chem Ltd.

**PROSPECTOR®**

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## Technical Data

### Product Description

LG ABS HF380 is an Acrylonitrile Butadiene Styrene (ABS) material. It is available in Asia Pacific, Europe, Latin America, or North America for injection molding.

Important attributes of LG ABS HF380 are:

- Flame Rated
- High Flow

Typical applications include:

- Consumer Goods
- Electrical/Electronic Applications

### General

Material Status	• Commercial: Active
Literature <sup>1</sup>	• <a href="#">Processing - Injection Molding Guide (English)</a> • <a href="#">Technical Datasheet (English)</a>
UL Yellow Card <sup>2</sup>	• <a href="#">E248280-462761</a> • <a href="#">E67171-248362</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
Features	• High Flow
Uses	• Electrical/Electronic Applications • Toys
Processing Method	• Injection Molding
Multi-Point Data	• Specific Heat vs. Temperature (ISO 11403-2)

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)	43 g/10 min	ASTM D1238
Molding Shrinkage - Flow (3.20 mm)	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)	2150 MPa	ASTM D638
Tensile Strength <sup>5</sup> (Yield, 3.20 mm)	42.2 MPa	ASTM D638
Tensile Elongation <sup>5</sup> (Break, 3.20 mm)	30 %	ASTM D638
Flexural Modulus <sup>6</sup> (3.20 mm)	2400 MPa	ASTM D790
Flexural Strength <sup>6</sup> (3.20 mm)	68.6 MPa	ASTM D790

Impact	Nominal Value Unit	Test Method
Notched Izod Impact		ASTM D256
-30°C, 3.20 mm	120 J/m	
-30°C, 6.40 mm	120 J/m	
23°C, 3.20 mm	250 J/m	
23°C, 6.40 mm	250 J/m	

Hardness	Nominal Value Unit	Test Method
Rockwell Hardness (R-Scale)	105	ASTM D785



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Thermal	Nominal Value Unit	Test Method
Deflection Temperature Under Load		ASTM D648
0.45 MPa, Unannealed, 6.40 mm	89.0 °C	
1.8 MPa, Unannealed, 6.40 mm	84.0 °C	
Vicat Softening Temperature	94.0 °C	ASTM D1525 <sup>7</sup>
RTI Elec		UL 746
1.50 mm	60.0 °C	
3.00 mm	60.0 °C	
RTI Imp		UL 746
1.50 mm	60.0 °C	
3.00 mm	60.0 °C	
RTI Str		UL 746
1.50 mm	60.0 °C	
3.00 mm	60.0 °C	
Electrical	Nominal Value Unit	Test Method
Volume Resistivity	1.0E+13 ohms·cm	ASTM D257
Dielectric Strength	34 kV/mm	ASTM D149
Arc Resistance	PLC 6	ASTM D495
Comparative Tracking Index (CTI)	PLC 1	UL 746
High Amp Arc Ignition (HAI)		UL 746
1.50 mm	PLC 0	
3.00 mm	PLC 0	
High Voltage Arc Tracking Rate (HVTR)	PLC 1	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, ALL	HB	
3.00 mm, ALL	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 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> 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)



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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

##### 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

##### GUZMAN GLOBAL S.L

Telephone: +34-963-992-400

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

Availability: Portugal, Spain

##### 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

##### 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

