



### General Information

#### General

Material Status	• Commercial: Active
Features	• High Impact Resistance
Uses	• Fittings • Piping • Safety Helmets
Forms	• Pellets
Processing Method	• Injection Molding
Multi-Point Data	• Specific Heat vs. Temperature (ISO 11403-2)

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

Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.02	g/cm <sup>3</sup>	ASTM D792
Melt Mass-Flow Rate (MFR) (220°C/10.0 kg)	12	g/10 min	ASTM D1238
Molding Shrinkage - Flow (3.20 mm)	0.40 to 0.70	%	ASTM D955
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus <sup>2</sup> (3.20 mm)	1610	MPa	ASTM D638
Tensile Strength <sup>3</sup> (Yield, 3.20 mm)	37.3	MPa	ASTM D638
Tensile Elongation <sup>3</sup> (Yield, 3.20 mm)	> 5.0	%	ASTM D638
Tensile Elongation <sup>3</sup> (Break, 3.20 mm)	30	%	ASTM D638
Flexural Modulus <sup>4</sup> (3.20 mm)	1810	MPa	ASTM D790
Flexural Strength <sup>4</sup> (3.20 mm)	57.9	MPa	ASTM D790
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact			ASTM D256
-30°C, 3.20 mm	270	J/m	
-30°C, 6.40 mm	270	J/m	
23°C, 3.20 mm	440	J/m	
23°C, 6.40 mm	420	J/m	
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness (R-Scale)	92		ASTM D785
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load 0.45 MPa, Unannealed, 6.40 mm	87.0	°C	ASTM D648
Deflection Temperature Under Load 1.8 MPa, Unannealed, 6.40 mm	84.0	°C	ASTM D648
Vicat Softening Temperature	90.0	°C	ASTM D1525 <sup>5</sup>
RTI Elec	60.0	°C	UL 746
RTI Imp	60.0	°C	UL 746
RTI Str	60.0	°C	UL 746
Flammability	Nominal Value	Unit	Test Method
Flame Rating	HB		UL 94

# LG ABS HI100

## LG Chem Ltd. - Acrylonitrile Butadiene Styrene

### Processing Information

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

### Injection Notes

Minimum Moisture Content: 0.01%

### Notes

<sup>1</sup> Typical properties: these are not to be construed as specifications.

<sup>2</sup> 1.0 mm/min

<sup>3</sup> 50 mm/min

<sup>4</sup> 15 mm/min

<sup>5</sup> Rate A (50°C/h), Loading 2 (50 N)