

# LG SAN 90HR

LG Chem Ltd. - Styrene Acrylonitrile

Saturday, January 18, 2020

## General Information

### Product Description

Description  
High Transparency, Heat Resistance  
Chemical Resistance

Application  
Battery Case, Light Cover

### General

Material Status	• Commercial: Active	
Availability	• Asia Pacific • Europe	• Latin America • North America
Features	• High Clarity	• Medium Heat Resistance
Uses	• Batteries	• Lighting Applications
Appearance	• Clear/Transparent	
Processing Method	• Injection Molding	

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

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	1.07	g/cm <sup>3</sup>	ASTM D792
Melt Mass-Flow Rate (MFR)			ASTM D1238
200°C/5.0 kg	2.0	g/10 min	
220°C/10.0 kg	25	g/10 min	
230°C/3.8 kg	8.0	g/10 min	
Molding Shrinkage - Flow (3.20 mm)	0.20 to 0.60	%	ASTM D955
Mechanical	Nominal Value	Unit	Test Method
Tensile Strength <sup>2</sup> (Yield, 3.20 mm)	77.5	MPa	ASTM D638
Tensile Elongation <sup>2</sup> (Break, 3.20 mm)	6.0	%	ASTM D638
Flexural Modulus <sup>3</sup> (3.20 mm)	3730	MPa	ASTM D790
Flexural Strength <sup>3</sup> (3.20 mm)	130	MPa	ASTM D790
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact (23°C, 6.40 mm)	9.8	J/m	ASTM D256
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness (R-Scale)	124		ASTM D785
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load 1.8 MPa, Unannealed, 6.40 mm	92.0	°C	ASTM D648
Vicat Softening Temperature	102	°C	ASTM D1525 <sup>4</sup>
Flammability	Nominal Value	Unit	Test Method
Flame Rating			UL 94
1.6 mm		HB	
3.2 mm		HB	

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### Processing Information

Injection	Nominal Value	Unit
Drying Temperature	80	°C
Drying Time	2.0 to 4.0	hr
Minimum Moisture Content	0.010	%
Rear Temperature	170 to 190	°C
Middle Temperature	180 to 200	°C
Front Temperature	190 to 210	°C
Nozzle Temperature	190 to 220	°C
Processing (Melt) Temp	190 to 220	°C
Mold Temperature	40 to 70	°C
Back Pressure	29.4 to 58.8	MPa
Screw Speed	30 to 60	rpm

### Notes

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

<sup>2</sup> 50 mm/min

<sup>3</sup> 15 mm/min

<sup>4</sup> Rate A (50°C/h), Loading 2 (50 N)