LG ABS HI121H

Acrylonitrile Butadiene Styrene

LG Chem Ltd.

PROSPECTOR®

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Technical Data

Product Description

Description

- Well balanced mechanical properties

Application

- Electric/electronic products, miscellaneous goods

General

Material Status	• Commercial: Active
Literature [1]	• Technical Datasheet (English)
UL Yellow Card [2]	• E248280-100213792 • E248280-462760 • E302314-590434 • E67171-248368
Search for UL Yellow Card	• LG Chem Ltd. • LG ABS
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	1.04 to 1.07	1.04 to 1.07 g/cm³	ASTM D792
Melt Mass-Flow Rate (MFR) (220°C/10.0 kg)	23 g/10 min	23 g/10 min	ASTM D1238
Molding Shrinkage - Flow (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 Strength [4] (Yield, 0.126 in (3.20 mm))	7110 psi	49.0 MPa	ASTM D638
Tensile Elongation [4]			ASTM D638
Break, 0.126 in (3.20 mm)	> 10 %	> 10 %	
Flexural Modulus [5] (0.126 in (3.20 mm))	370000 psi	2550 MPa	ASTM D790
Flexural Strength [5] (0.126 in (3.20 mm))	11100 psi	76.5 MPa	ASTM D790
Impact	**Nominal Value (English)**	**Nominal Value (SI)**	**Test Method**
Notched Izod Impact			ASTM D256
73°F (23°C), 0.252 in (6.40 mm)	4.2 ft·lb/in	230 J/m	
Hardness	**Nominal Value (English)**	**Nominal Value (SI)**	**Test Method**
Rockwell Hardness (R-Scale)	110	110	ASTM D785
Thermal	**Nominal Value (English)**	**Nominal Value (SI)**	**Test Method**
Deflection Temperature Under Load			ASTM D648
264 psi (1.8 MPa), Unannealed, 0.252 in (6.40 mm)	187 °F	86.0 °C	
Vicat Softening Temperature	201 °F	94.0 °C	ASTM D1525 [6]
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

Form No. TDS-37692-en

Document Created: Saturday, October 21, 2017
Added to Prospector: November 2000
Last Updated: 8/29/2016

Injection	Nominal Value (English)	Nominal Value (SI)
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%

Notes

[1] 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.

[2] 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.

[3] Typical properties: these are not to be construed as specifications.

[4] 2.0 in/min (50 mm/min)

[5] 0.59 in/min (15 mm/min)

[6] Rate A (50°C/h), Loading 2 (50 N)

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