LG ABS LG749W

LG Chem Ltd. - Acrylonitrile Butadiene Styrene

Friday, May 24, 2019

General Information

Product Description

Description

- Low Gloss, Heat Resistance

Applications

- Automotive Interior Housing (Glove Cover, Door S/W Housing Etc)

General

Material Status	• Commercial: Active		
Availability	• Asia Pacific • Europe	• Latin America • North America	
Features	• Good Heat Resistance	• Low Gloss	
Uses	• Automotive Applications	• Automotive Interior Parts	• Housings
Processing Method	• Injection Molding		

ASTM & ISO Properties [1]

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	1.04	g/cm³	ASTM D792
Density	1.05	g/cm³	ISO 1183
Melt Mass-Flow Rate (MFR) (220°C/10.0 kg)	6.0	g/10 min	ASTM D1238
Melt Mass-Flow Rate (MFR) (220°C/10.0 kg)	6.0	g/10 min	ISO 1133
Molding Shrinkage - Flow (23°C, 3.20 mm, Injection Molded)	0.40 to 0.70	%	ASTM D955
Molding Shrinkage - Flow (3.20 mm)	0.40 to 0.70	%	ISO 294-4
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Modulus	2150	MPa	ISO 527-2/1
Tensile Strength [2] (Yield, 3.20 mm, Injection Molded)	47.1	MPa	ASTM D638
Tensile Stress (Yield)	47.0	MPa	ISO 527-2/50
Tensile Elongation [2] (Break, 3.20 mm, Injection Molded)	15	%	ASTM D638
Flexural Modulus [3] (3.20 mm, Injection Molded)	2350	MPa	ASTM D790
Flexural Modulus [4]	2200	MPa	ISO 178
Flexural Strength [3] (3.20 mm, Injection Molded)	73.5	MPa	ASTM D790
Flexural Stress [4]	73.0	MPa	ISO 178
Impact	**Nominal Value**	**Unit**	**Test Method**
Charpy Notched Impact Strength (23°C)	22	kJ/m²	ISO 179/1eA
Notched Izod Impact			ASTM D256
-30°C, 3.20 mm, Injection Molded	98	J/m	
-30°C, 6.40 mm, Injection Molded	88	J/m	
23°C, 3.20 mm, Injection Molded	260	J/m	
23°C, 6.40 mm, Injection Molded	240	J/m	
Notched Izod Impact Strength (23°C)	23	kJ/m²	ISO 180/1A
Hardness	**Nominal Value**	**Unit**	**Test Method**
Rockwell Hardness (R-Scale, 23°C, Injection Molded)	106		ASTM D785
Rockwell Hardness	106		ISO 2039-2

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Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			ASTM D648
0.45 MPa, Unannealed, 6.40 mm, Injection Molded	100	°C	
Heat Deflection Temperature [5]			ISO 75-2/Be
0.45 MPa, Unannealed, 4.00 mm	97.0	°C	
Deflection Temperature Under Load			ASTM D648
1.8 MPa, Unannealed, 6.40 mm, Injection Molded	92.0	°C	
Heat Deflection Temperature [5]			ISO 75-2/Ae
1.8 MPa, Unannealed, 4.00 mm	87.0	°C	
Vicat Softening Temperature	100	°C	ASTM D1525 [6]
Vicat Softening Temperature	106	°C	ISO 306/B50
CLTE - Flow (23 to 60°C)	8.0E-5 to 9.0E-5	cm/cm/°C	ISO 11359-2
CLTE - Transverse (23 to 60°C)	8.0E-5 to 9.0E-5	cm/cm/°C	ISO 11359-2

Optical	Nominal Value	Unit	Test Method
Gloss (45°)	30		ASTM D2457

Processing Information

Injection	Nominal Value	Unit
Drying Temperature	80 to 90	°C
Drying Time	3.0 to 4.0	hr
Suggested Max Moisture	0.050	%
Rear Temperature	180 to 200	°C
Middle Temperature	200 to 220	°C
Front Temperature	220 to 230	°C
Nozzle Temperature	220 to 230	°C
Processing (Melt) Temp	220 to 250	°C
Mold Temperature	40 to 60	°C
Back Pressure	0.981 to 2.94	MPa

Notes

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

[2] 50 mm/min

[3] 15 mm/min

[4] 2.0 mm/min

[5] 120*10*4mm

[6] Rate A (50°C/h), Loading 2 (50 N)