

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/cm ³	ASTM D792
Density	1.05	g/cm ³	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/m ²	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/m ²	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 0.45 MPa, Unannealed, 6.40 mm, Injection Molded	100	°C	ASTM D648
Heat Deflection Temperature ⁵ 0.45 MPa, Unannealed, 4.00 mm	97.0	°C	ISO 75-2/Be
Deflection Temperature Under Load 1.8 MPa, Unannealed, 6.40 mm, Injection Molded	92.0	°C	ASTM D648
Heat Deflection Temperature ⁵ 1.8 MPa, Unannealed, 4.00 mm	87.0	°C	ISO 75-2/Ae
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)