LG ABS XR409H

LG Chem Ltd. - Acrylonitrile Butadiene Styrene

Saturday, July 20, 2019

General Information

Product Description

Description

- Heat Resistance

Applications

- Automotives Interior & Exterior Housing, (Glove Box, Rear Lamp Housing Etc)

General

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

ASTM & ISO Properties [1]

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity [2]	1.06	g/cm³	ASTM D792
Density (23°C)	1.06	g/cm³	ISO 1183
Melt Mass-Flow Rate (MFR) (220°C/10.0 kg)	3.0	g/10 min	ASTM D1238
Melt Volume-Flow Rate (MVR) (220°C/10.0 kg)	3.00	cm³/10min	ISO 1133
Molding Shrinkage - Flow (23°C, 3.20 mm, Injection Molded)	0.40 to 0.70	%	ASTM D955
Molding Shrinkage - Flow [3] (23°C, 3.20 mm)	0.40 to 0.70	%	ISO 294-4
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Modulus [4] (23°C, 3.20 mm, Injection Molded)	2400	MPa	ASTM D638
Tensile Modulus (23°C, 4.00 mm, Injection Molded)	2350	MPa	ISO 527-2/50
Tensile Strength [4]			ASTM D638
Yield, 23°C, 3.20 mm, Injection Molded	49.0	MPa	
Tensile Stress			ISO 527-2/50
Yield, 23°C, 4.00 mm, Injection Molded	49.0	MPa	
Tensile Elongation [4]			ASTM D638
Break, 23°C, 3.20 mm, Injection Molded	> 15	%	
Tensile Strain			ISO 527-2/50
Break, 23°C, 4.00 mm, Injection Molded	> 15	%	
Flexural Modulus [5] (23°C, 3.20 mm, Injection Molded)	2550	MPa	ASTM D790
Flexural Modulus [6] (23°C, 4.00 mm, Injection Molded)	2400	MPa	ISO 178
Flexural Strength [5] (23°C, 3.20 mm, Injection Molded)	78.5	MPa	ASTM D790
Flexural Stress [6] (23°C, 4.00 mm, Injection Molded)	77.0	MPa	ISO 178

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Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength [7]			ISO 179/1eA
-30°C, Injection Molded	8.0	kJ/m²	
23°C, Injection Molded	15	kJ/m²	
Notched Izod Impact			ASTM D256
-30°C, 3.20 mm, Injection Molded	70	J/m	
-30°C, 6.40 mm, Injection Molded	60	J/m	
23°C, 3.20 mm, Injection Molded	180	J/m	
23°C, 6.40 mm, Injection Molded	170	J/m	
Notched Izod Impact Strength [7]			ISO 180/1A
-30°C, Injection Molded	8.0	kJ/m²	
23°C, Injection Molded	16	kJ/m²	
Hardness	**Nominal Value**	**Unit**	**Test Method**
Rockwell Hardness (R-Scale, 23°C, Injection Molded)	111		ASTM D785
Rockwell Hardness (R-Scale)	114		ISO 2039-2
Thermal	**Nominal Value**	**Unit**	**Test Method**
Deflection Temperature Under Load [8]			ASTM D648
1.8 MPa, Unannealed, 6.40 mm, Injection Molded	106	°C	
Heat Deflection Temperature [9]			ISO 75-2/Af
1.8 MPa, Unannealed, 4.00 mm	99.0	°C	
Vicat Softening Temperature	116	°C	ASTM D1525 [10]
Vicat Softening Temperature	117	°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
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			UL 94
1.5 mm	HB		
3.0 mm	HB		

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 210	°C
Middle Temperature	210 to 230	°C
Front Temperature	230 to 240	°C
Nozzle Temperature	230 to 240	°C
Processing (Melt) Temp	230 to 260	°C
Mold Temperature	40 to 60	°C
Back Pressure [11]	0.981 to 2.94	MPa

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Notes

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

[2] 23°C

[3] Injection Molded

[4] 50 mm/min

[5] 15 mm/min

[6] 2.0 mm/min

[7] 4mm

[8] Edgewise

[9] Injection Molded)

[10] Rate A (50°C/h), Loading 2 (50 N)

[11] Hydraulic Type