

# LG ABS AF312C

LG Chem Ltd. - Acrylonitrile Butadiene Styrene

Saturday, July 20, 2019

## General Information

### Product Description

#### Description

- Flame Retardant

#### Application

- Electric parts, IT/OA device
- TV, monitor housing

### General

Material Status	• Commercial: Active
Availability	• Asia Pacific • Europe • Latin America • North America
Features	• Flame Retardant
Uses	• Electrical Parts • Television Housings
RoHS Compliance	• RoHS Compliant
Processing Method	• Injection Molding

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

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	1.18	g/cm <sup>3</sup>	ASTM D792
Melt Mass-Flow Rate (MFR) (220°C/10.0 kg)	60	g/10 min	ASTM D1238
Molding Shrinkage - Flow (23°C, 3.20 mm, Injection Molded)	0.40 to 0.70	%	ASTM D955
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus <sup>2</sup> (23°C, 3.20 mm, Injection Molded)	2160	MPa	ASTM D638
Tensile Strength <sup>3</sup>			ASTM D638
Yield, 23°C, 3.20 mm, Injection Molded	43.1	MPa	
Tensile Elongation <sup>3</sup>			ASTM D638
Yield, 23°C, 3.20 mm, Injection Molded	5.0	%	
Tensile Elongation <sup>3</sup>			ASTM D638
Break, 23°C, 3.20 mm, Injection Molded	> 20	%	
Flexural Modulus <sup>4</sup> (23°C, 6.40 mm, Injection Molded)	2550	MPa	ASTM D790
Flexural Strength <sup>4</sup> (23°C, 6.40 mm, Injection Molded)	68.6	MPa	ASTM D790
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact			ASTM D256
-30°C, 3.20 mm, Injection Molded	78	J/m	
-30°C, 6.40 mm	78	J/m	
23°C, 3.20 mm, Injection Molded	260	J/m	
23°C, 6.40 mm, Injection Molded	230	J/m	
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness (R-Scale, 23°C, Injection Molded)	104		ASTM D785

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Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load 0.45 MPa, Unannealed, 6.40 mm, Injection Molded	84.0	°C	ASTM D648
Deflection Temperature Under Load 1.8 MPa, Unannealed, 6.40 mm, Injection Molded	77.0	°C	ASTM D648
Vicat Softening Temperature	84.0	°C	ASTM D1525 <sup>5</sup>
RTI Elec	80.0	°C	UL 746
RTI Imp	70.0	°C	UL 746
RTI Str	80.0	°C	UL 746
Flammability	Nominal Value	Unit	Test Method
Flame Rating 2.5 mm 3.0 mm	V-0 V-0		UL 94

### Processing Information

Injection	Nominal Value	Unit
Drying Temperature	80 to 90	°C
Drying Time	3.0 to 4.0	hr
Rear Temperature	170 to 190	°C
Middle Temperature	180 to 200	°C
Front Temperature	190 to 210	°C
Nozzle Temperature	200 to 230	°C
Processing (Melt) Temp	200 to 230	°C
Mold Temperature	40 to 60	°C
Back Pressure	0.490 to 0.981	MPa
Screw Speed	30 to 60	rpm

#### Injection Notes

Minimum Moisture Content: 0.01%

#### Notes

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

<sup>2</sup> 1.0 mm/min

<sup>3</sup> 50 mm/min

<sup>4</sup> 15 mm/min

<sup>5</sup> Rate A (50°C/h), Loading 2 (50 N)