

Technical Data

Product Description

LG ASA LI911	Description	LI911 is a General Purpose ASA product for injection molding, designed to have good weatherability and high fluidity.
	Key Features	Weatherability, High Flow
	Application	Air conditioner grill, Sawing machine cover, Electrical/Electronic Products

Generic ASA
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General	LG ASA LI911	Generic ASA
Manufacturer / Supplier	• LG Chem Ltd.	• Generic
Generic Symbol	• ASA	• ASA
Material Status	• Commercial: Active	• Commercial: Active
Literature ¹	• Technical Datasheet	--
UL Yellow Card ²	• E67171-248321	--
Search for UL Yellow Card	• LG Chem Ltd.	--
Availability	<ul style="list-style-type: none"> • Asia Pacific • Europe • Latin America • North America 	<ul style="list-style-type: none"> • Africa & Middle East • Asia Pacific • Europe • Latin America • North America
Features	<ul style="list-style-type: none"> • Good Weather Resistance • High Flow 	--
Uses	<ul style="list-style-type: none"> • Appliance Components • Electrical/Electronic Applications • Protective Coverings 	--
Processing Method	• Injection Molding	--
Multi-Point Data	• Specific Heat vs. Temperature (ISO 11403)	--
Also Available In	--	<ul style="list-style-type: none"> • Asia Pacific • Europe • Latin America • North America

Physical	LG ASA LI911	Generic ASA	Unit	Test Method
Density / Specific Gravity				
-- ⁴	1.07	--	g/cm ³	ASTM D792
--	--	1.05 to 1.09	g/cm ³	ASTM D792
--	--	1.06 to 1.07	g/cm ³	ISO 1183
Melt Mass-Flow Rate (MFR)				
220°C/10.0 kg	20	0.20 to 20	g/10 min	ASTM D1238
220°C/10.0 kg	--	3.0 to 25	g/10 min	ISO 1133
Melt Volume-Flow Rate (MVR) (220°C/10.0 kg)	--	3.0 to 20	cm ³ /10min	ISO 1133



Physical	LG ASA LI911	Generic ASA	Unit	Test Method
Molding Shrinkage				
Flow	--	0.54 to 0.55	%	ASTM D955
Flow : 23°C, 3.20 mm, Injection Molded	0.40 to 0.70	--	%	ASTM D955
Across Flow	--	0.54 to 0.71	%	ASTM D955
--	--	0.49 to 0.60	%	ISO 294-4
Water Absorption				ISO 62
24 hr, 23°C	--	0.30 to 0.45	%	
Saturation, 23°C	--	0.50 to 1.7	%	
Equilibrium, 23°C, 50% RH	--	0.20 to 0.37	%	
Mechanical	LG ASA LI911	Generic ASA	Unit	Test Method
Tensile Modulus				
--	--	1700 to 2590	MPa	ASTM D638
--	--	1780 to 2580	MPa	ISO 527-1
Tensile Strength				
Yield	--	35.8 to 51.5	MPa	ASTM D638
Yield, 23°C, 3.20 mm, Injection Molded ⁵	50.0	--	MPa	ASTM D638
Yield	--	38.8 to 51.0	MPa	ISO 527-2
Break	--	31.0 to 46.0	MPa	ASTM D638
Break	--	24.9 to 51.5	MPa	ISO 527-2
--	--	40.8 to 50.2	MPa	ASTM D638
--	--	39.5 to 53.3	MPa	ISO 527-2
Tensile Elongation				
Yield	--	2.5 to 30	%	ASTM D638
Yield	--	2.7 to 3.7	%	ISO 527-2
Break	--	2.6 to 100	%	ASTM D638
Break, 23°C, 3.20 mm, Injection Molded ⁵	> 20	--	%	ASTM D638
Break	--	1.0 to 51	%	ISO 527-2
Nominal Tensile Strain at Break	--	5.0 to 41	%	ISO 527-2
Tensile Creep Modulus (1000 hr)	--	1250	MPa	ISO 899-1
Flexural Modulus				
--	--	1670 to 2560	MPa	ASTM D790
23°C, 6.40 mm, Injection Molded ⁶	2350	--	MPa	ASTM D790
--	--	1550 to 2690	MPa	ISO 178
Flexural Strength				
--	--	39.3 to 79.8	MPa	ASTM D790
23°C, 6.40 mm, Injection Molded ⁶	80.0	--	MPa	ASTM D790
--	--	55.7 to 80.5	MPa	ISO 178
Yield	--	55.9 to 74.8	MPa	ASTM D790



Impact	LG ASA LI911	Generic ASA	Unit	Test Method
Charpy Notched Impact Strength	--	2.0 to 17	kJ/m ²	ISO 179
Charpy Unnotched Impact Strength	--	5.1 to 150	kJ/m ²	ISO 179
Notched Izod Impact				
--	--	16 to 410	J/m	ASTM D256
23°C, 6.40 mm, Injection Molded	120	--	J/m	ASTM D256
--	--	1.9 to 20	kJ/m ²	ISO 180
Unnotched Izod Impact Strength	--	6.8 to 80	kJ/m ²	ISO 180
Instrumented Dart Impact	--	3.00 to 36.6	J	ASTM D3763
Hardness	LG ASA LI911	Generic ASA	Unit	Test Method
Rockwell Hardness				
--	--	84 to 111		ASTM D785
R-Scale, 23°C, Injection Molded	107	--		ASTM D785
--	--	94 to 111		ISO 2039-2
Ball Indentation Hardness	--	65.0 to 98.8	MPa	ISO 2039-1
Thermal	LG ASA LI911	Generic ASA	Unit	Test Method
Deflection Temperature Under Load				
0.45 MPa, Unannealed	--	84.5 to 106	°C	ASTM D648
0.45 MPa, Unannealed	--	84.5 to 107	°C	ISO 75-2/B
0.45 MPa, Annealed	--	100 to 106	°C	ISO 75-2/B
1.8 MPa, Unannealed	--	68.3 to 93.8	°C	ASTM D648
1.8 MPa, Unannealed, 6.40 mm, Injection Molded ⁷	87.0	--	°C	ASTM D648
1.8 MPa, Unannealed	--	74.6 to 90.4	°C	ISO 75-2/A
1.8 MPa, Annealed	--	91.0 to 95.0	°C	ASTM D648
1.8 MPa, Annealed	--	87.5 to 106	°C	ISO 75-2/A
Vicat Softening Temperature				
--	--	92.0 to 106	°C	ASTM D1525
--	96.0	--	°C	ASTM D1525 ⁸
--	--	88.6 to 113	°C	ISO 306
CLTE				
Flow	--	8.4E-5 to 9.0E-5	cm/cm/°C	ASTM E831
Flow	--	7.0E-5 to 9.5E-5	cm/cm/°C	ISO 11359-2
Transverse	--	9.2E-5 to 1.1E-4	cm/cm/°C	ASTM E831
Transverse	--	7.0E-5 to 1.2E-4	cm/cm/°C	ISO 11359-2
Thermal Conductivity	--	0.17	W/m/K	ISO 8302



Electrical	LG ASA LI911	Generic ASA	Unit	Test Method
Surface Resistivity	--	1.0E+12 to 1.0E+15	ohms	IEC 60093
Volume Resistivity	--	1.0E+12 to 2.5E+14	ohms·cm	IEC 60093
Electric Strength	--	16 to 38	kV/mm	IEC 60243-1
Dielectric Constant				
--	--	3.21 to 5.20		ASTM D150
--	--	4.18		IEC 60250
Dissipation Factor				
--	--	0.018 to 0.15		ASTM D150
--	--	9.0E-3 to 0.15		IEC 60250
Comparative Tracking Index	--	591 to 600	V	IEC 60112
Flammability	LG ASA LI911	Generic ASA	Unit	Test Method
Burning Rate	--	100	mm/min	ISO 3795
Glow Wire Flammability Index	--	645 to 753	°C	IEC 60695-2-12
Glow Wire Ignition Temperature	--	697 to 700	°C	IEC 60695-2-13
Optical	LG ASA LI911	Generic ASA	Unit	Test Method
Gloss	--	3 to 95		ASTM D523
Injection	LG ASA LI911	Generic ASA	Unit	
Drying Temperature	80 to 90	80 to 88	°C	
Drying Time	2.0 to 3.0	2.5 to 3.6	hr	
Suggested Max Moisture	--	0.020 to 0.10	%	
Suggested Shot Size	--	55 to 60	%	
Rear Temperature	--	183 to 246	°C	
Middle Temperature	--	198 to 250	°C	
Front Temperature	--	214 to 256	°C	
Nozzle Temperature	--	215 to 246	°C	
Processing (Melt) Temp	180 to 220	213 to 261	°C	
Mold Temperature	40 to 80	60 to 61	°C	
Injection Pressure	--	97.7 to 147	MPa	
Back Pressure	--	0.414 to 10.0	MPa	
Screw Speed	50 to 100	49 to 100	rpm	
Vent Depth	--	0.057	mm	

Injection Notes

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Extrusion	LG ASA LI911	Generic ASA	Unit
Drying Temperature	--	80 to 88	°C
Drying Time	--	2.5 to 3.6	hr
Cylinder Zone 1 Temp.	--	195	°C
Cylinder Zone 3 Temp.	--	220	°C
Cylinder Zone 4 Temp.	--	220	°C
Adapter Temperature	--	220	°C
Melt Temperature	--	215 to 225	°C
Die Temperature	--	225 to 231	°C

Extrusion Notes

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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 23°C
- ⁵ 50 mm/min
- ⁶ 10 mm/min
- ⁷ Edgewise
- ⁸ Rate A (50°C/h), Loading 2 (50 N)

