Distrupol
A Univar company

LG ABS HI-121

LG Chem Ltd. - Acrylonitrile Butadiene Styrene

Thursday, 22 October 2009

General Information

General	
Material Status	• Commercial: Active
Features	• Good Impact Resistance
Forms	• Pellets
Processing Method	• Injection Molding
Multi-Point Data	• Specific Heat vs. Temperature (ISO 11403-2)

ASTM and ISO Properties [1]

Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.05	g/cm³	ASTM D792
Density	1040	kg/m³	ISO 1183 [2]
Melt Mass-Flow Rate (MFR) (220°C/10.0 kg)	15	g/10 min	ASTM D1238
Melt volume-flow rate (220°C/10.0 kg)	22.6	cm³/10min	ISO 1133 [2]
Molding Shrinkage - Flow	0.40 to 0.70	%	ASTM D955
Water Absorption (Saturation)	0.28	%	ISO 62 [2]
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile modulus	2200	MPa	ISO 527-2 [2]
Tensile Strength (Yield)	46.9	MPa	ASTM D638
Tensile Stress (Yield)	43.0	MPa	ISO 527-2 [2]
Tensile Strain (Yield)	5.0	%	ISO 527-2 [2]
Tensile Elongation (Break)	25	%	ASTM D638
Nominal strain at break	15	%	ISO 527-2 [2]
Flexural Modulus	2250	MPa	ASTM D790
Flexural Strength	73.8	MPa	ASTM D790
Impact	**Nominal Value**	**Unit**	**Test Method**
Charpy notched impact strength (23°C)	33.6	kJ/m²	ISO 179/1eA [2]
Charpy notched impact strength (-30°C)	21.4	kJ/m²	ISO 179/1eA [2]
Charpy impact strength (23°C)	No Break		ISO 179/1eU [2]
Charpy impact strength (-30°C)	No Break		ISO 179/1eU [2]
Notched Izod Impact			ASTM D256
23°C, 3.18 mm	342	J/m	
23°C, 6.35 mm	294	J/m	
Hardness	**Nominal Value**	**Unit**	**Test Method**
Rockwell Hardness (R-Scale)	101		ASTM D785
Thermal	**Nominal Value**	**Unit**	**Test Method**
Deflection Temperature Under Load			ASTM D648
1.8 MPa, Unannealed	91.1	°C	
Glass Transition Temperature [3]	100	°C	ISO 11357-2 [2]
Vicat Softening Temperature	97.8	°C	ASTM D1525
Vicat Softening Temperature (50°C/h, B (50N))	100	°C	ISO 306 [2]
CLTE - Flow	0.000093	cm/cm/°C	ISO 11359-2 [2]
CLTE - Transverse	0.00012	cm/cm/°C	ISO 11359-2 [2]

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Electrical	Nominal Value	Unit	Test Method
Comparative tracking index	575		IEC 60112 [2]

Flammability	Nominal Value	Unit	Test Method
Flame Rating - UL			UL 94
1.59 mm	HB		
3.18 mm	HB		
Burning Behav. at thickness h (3.20 mm, UL)	HB		ISO 1210 [2]

Additional Information

Melt Flow Rate, ASTM D1238, 200°C/5kg: 1.5 g/10min
Melt Flow Rate, ASTM D1238, 230°C/3.8kg: 5.3 g/10min

Processing Information

Injection	Nominal Value	Unit
Drying Temperature	79.4 to 90.6	°C
Drying Time	2.0 to 3.0	hr
Rear Temperature	191 to 210	°C
Middle Temperature	199 to 221	°C
Front Temperature	210 to 229	°C
Nozzle Temperature	210 to 229	°C
Processing (Melt) Temp	221 to 241	°C
Mold Temperature	60.0 to 90.6	°C
Injection Pressure	68.6 to 97.9	MPa
Back Pressure	0.00 to 3.93	MPa
Screw Speed	40 to 60	rpm

Notes

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

[2] Tested in accordance with ISO 10350. 23°C/50%r.h. unless otherwise noted.

[3] 10 °C/min

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