

LG PS 50IS

High Impact Polystyrene

LG Chem Ltd.

Message:

LG PS 50IS is a high impact polystyrene material. This product is available in North America, Latin America, Europe or Asia Pacific. The main characteristics of LG PS 50IS are: flame retardant/rated flame.

Typical application areas include:

- sheet
- Movie container
- Consumer goods

General Information	
UL YellowCard	E67171-248514
Features	Impact modification
	General
Uses	Films
	Sheet
	Food container
	General
	Toys

Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.03	g/cm ³	ASTM D792
Melt Mass-Flow Rate (MFR)			ASTM D1238
200°C/5.0 kg	8.0	g/10 min	ASTM D1238
220°C/10.0 kg	80	g/10 min	ASTM D1238
230°C/3.8 kg	19	g/10 min	ASTM D1238
Molding Shrinkage - Flow	0.40 - 0.80	%	ASTM D955
Dimensional Stability	0.0	%	ASTM D1042
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness (R-Scale)	99		ASTM D785
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus ¹ (3.20 mm)	1770	MPa	ASTM D638
Tensile Strength ² (Yield, 3.20 mm)	26.5	MPa	ASTM D638
Tensile Elongation ³			ASTM D638
Yield, 3.20mm	5.0	%	ASTM D638
Fracture, 3.20mm	59	%	ASTM D638
Flexural Modulus ⁴ (3.20 mm)	2160	MPa	ASTM D790
Flexural Strength ⁵ (Yield, 3.20 mm)	42.2	MPa	ASTM D790
Impact	Nominal Value	Unit	Test Method

Notched Izod Impact			ASTM D256
-30°C, 3.20 mm	59	J/m	ASTM D256
-30°C, 6.40 mm	49	J/m	ASTM D256
23°C, 3.20 mm	120	J/m	ASTM D256
23°C, 6.40 mm	78	J/m	ASTM D256
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			ASTM D648
0.45 MPa, unannealed, 6.40mm	88.0	°C	ASTM D648
1.8 MPa, unannealed, 6.40mm	80.0	°C	ASTM D648
Vicat Softening Temperature	87.0	°C	ASTM D1525 ⁶
RTI Elec			UL 746
1.50 mm	50.0	°C	UL 746
3.00 mm	50.0	°C	UL 746
RTI Imp			UL 746
1.50 mm	50.0	°C	UL 746
3.00 mm	50.0	°C	UL 746
RTI			UL 746
1.50 mm	50.0	°C	UL 746
3.00 mm	50.0	°C	UL 746
Electrical	Nominal Value	Unit	Test Method
Volume Resistivity	1.0E+14	ohms·cm	ASTM D257
Dielectric Strength	44	kV/mm	ASTM D149
Arc Resistance	PLC 6		ASTM D495
Comparative Tracking Index (CTI)	PLC 1		UL 746
High Amp Arc Ignition (HAI)			UL 746
1.50 mm	PLC 0		UL 746
3.00 mm	PLC 0		UL 746
High Voltage Arc Tracking Rate (HVTR)	PLC 2		UL 746
Hot-wire Ignition (HWI)			UL 746
1.50 mm	PLC 4		UL 746
3.00 mm	PLC 3		UL 746
Flammability	Nominal Value	Unit	Test Method
Flame Rating			UL 94
1.50 mm, ALL	HB		UL 94
3.00 mm, ALL	HB		UL 94
Injection	Nominal Value	Unit	
Drying Temperature	80.0	°C	
Drying Time	2.0 - 4.0	hr	
Rear Temperature	170 - 190	°C	
Middle Temperature	180 - 200	°C	
Front Temperature	190 - 210	°C	
Nozzle Temperature	190 - 220	°C	

Processing (Melt) Temp	190 - 220	°C
Mold Temperature	40.0 - 70.0	°C
Back Pressure	29.4 - 58.8	MPa
Screw Speed	30 - 60	rpm

Injection instructions

Minimum Moisture Content: 0.01%

NOTE

1.	1.0 mm/min
2.	50 mm/min
3.	50 mm/min
4.	15 mm/min
5.	15 mm/min
6.	速率 A (50°C/h), 载荷2 (50N)

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