

LG PS 65IHE

High Impact Polystyrene
LG Chem Ltd.

Technical Data

Product Description

LG PS 65IHE is a High Impact Polystyrene material. It is available in Asia Pacific, Europe, Latin America, or North America for extrusion.

Important attributes of LG PS 65IHE are:

- Flame Rated
- RoHS Compliant
- Impact Modified

Typical applications include:

- Bags/Liners
- Trays/Racks

General

Material Status	• Commercial: Active
Literature ¹	• Technical Datasheet (English)
Search for UL Yellow Card	• LG Chem Ltd.
Availability	• Asia Pacific • Europe • Latin America • North America
Additive	• Impact Modifier
Features	• General Purpose • Impact Modified
Uses	• General Purpose • Liners • Support Trays
RoHS Compliance	• RoHS Compliant
Processing Method	• Extrusion

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Specific Gravity	1.03	1.03 g/cm ³	ASTM D792
Melt Mass-Flow Rate (MFR)			ASTM D1238
200°C/5.0 kg	3.0 g/10 min	3.0 g/10 min	
220°C/10.0 kg	37 g/10 min	37 g/10 min	
230°C/3.8 kg	8.0 g/10 min	8.0 g/10 min	

Mechanical	Nominal Value (English)	Nominal Value (SI)	Test Method
Tensile Modulus ³ (0.126 in (3.20 mm))	260000 psi	1790 MPa	ASTM D638
Tensile Strength ⁴ (Yield, 0.126 in (3.20 mm))	3980 psi	27.5 MPa	ASTM D638
Tensile Elongation ⁴			ASTM D638
Yield, 0.126 in (3.20 mm)	6.0 %	6.0 %	
Break, 0.126 in (3.20 mm)	57 %	57 %	
Flexural Modulus ⁵ (0.126 in (3.20 mm))	306000 psi	2110 MPa	ASTM D790
Flexural Strength ⁵ (Yield)	6830 psi	47.1 MPa	ASTM D790

Impact	Nominal Value (English)	Nominal Value (SI)	Test Method
Notched Izod Impact			ASTM D256
-22°F (-30°C), 0.126 in (3.20 mm)	1.3 ft·lb/in	69 J/m	
-22°F (-30°C), 0.252 in (6.40 mm)	1.1 ft·lb/in	59 J/m	
73°F (23°C), 0.126 in (3.20 mm)	2.4 ft·lb/in	130 J/m	
73°F (23°C), 0.252 in (6.40 mm)	1.7 ft·lb/in	88 J/m	

Hardness	Nominal Value (English)	Nominal Value (SI)	Test Method
Rockwell Hardness (R-Scale)	100	100	ASTM D785

Thermal	Nominal Value (English)	Nominal Value (SI)	Test Method
Deflection Temperature Under Load			ASTM D648
66 psi (0.45 MPa), Unannealed, 0.252 in (6.40 mm)	198 °F	92.0 °C	
264 psi (1.8 MPa), Unannealed, 0.252 in (6.40 mm)	181 °F	83.0 °C	



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Thermal	Nominal Value (English)	Nominal Value (SI)	Test Method
Vicat Softening Temperature	198 °F	92.0 °C	ASTM D1525 ⁶
RTI Elec			UL 746
0.0591 in (1.50 mm)	122 °F	50.0 °C	
0.118 in (3.00 mm)	122 °F	50.0 °C	
0.236 in (6.00 mm)	122 °F	50.0 °C	
RTI Imp			UL 746
0.0591 in (1.50 mm)	122 °F	50.0 °C	
0.118 in (3.00 mm)	122 °F	50.0 °C	
0.236 in (6.00 mm)	122 °F	50.0 °C	
RTI Str			UL 746
0.0591 in (1.50 mm)	122 °F	50.0 °C	
0.118 in (3.00 mm)	122 °F	50.0 °C	
0.236 in (6.00 mm)	122 °F	50.0 °C	
Electrical	Nominal Value (English)	Nominal Value (SI)	Test Method
Comparative Tracking Index (CTI)	PLC 1	PLC 1	UL 746
High Amp Arc Ignition (HAI)			UL 746
0.0591 in (1.50 mm)	PLC 0	PLC 0	
0.118 in (3.00 mm)	PLC 0	PLC 0	
0.236 in (6.00 mm)	PLC 0	PLC 0	
High Voltage Arc Tracking Rate (HVTR)	PLC 0	PLC 0	UL 746
Hot-wire Ignition (HWI)			UL 746
0.0591 in (1.50 mm)	PLC 3	PLC 3	
0.118 in (3.00 mm)	PLC 3	PLC 3	
0.236 in (6.00 mm)	PLC 2	PLC 2	
Flammability	Nominal Value (English)	Nominal Value (SI)	Test Method
Flame Rating			UL 94
0.0625 in (1.59 mm)	HB	HB	
0.125 in (3.18 mm)	HB	HB	
0.236 in (6.00 mm)	HB	HB	
Injection	Nominal Value (English)	Nominal Value (SI)	
Drying Temperature	176 °F	80.0 °C	
Drying Time	2.0 to 4.0 hr	2.0 to 4.0 hr	
Rear Temperature	338 to 374 °F	170 to 190 °C	
Middle Temperature	356 to 392 °F	180 to 200 °C	
Front Temperature	374 to 410 °F	190 to 210 °C	
Nozzle Temperature	374 to 428 °F	190 to 220 °C	
Processing (Melt) Temp	374 to 428 °F	190 to 220 °C	
Mold Temperature	104 to 158 °F	40.0 to 70.0 °C	
Back Pressure	4270 to 8530 psi	29.4 to 58.8 MPa	
Screw Speed	30 to 60 rpm	30 to 60 rpm	

Injection Notes

Minimum Moisture Content: 0.01%

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

³ 0.039 in/min (1.0 mm/min)

⁴ 2.0 in/min (50 mm/min)

⁵ 0.59 in/min (15 mm/min)

⁶ Rate A (50°C/h), Loading 2 (50 N)

