

LG Chemical HIPS MI750 PS, Impact Modified

Category : Polymer , Thermoplastic , Polystyrene (PS) , Polystyrene, Impact Modified

Material Notes:

Description: Injection Molding, PS, Impact Modified, High Gloss
Application: Electric/Electronic Components, Stationary Articles, Food Containers, etc.
CAS: 9003-55-8
Information provided by LG Chemical

Order this product through the following link:

http://www.lookpolymers.com/polymer_LG-Chemical-HIPS-MI750-PS-Impact-Modified.php

Physical Properties	Metric	English	Comments
Specific Gravity	1.05 g/cc	1.05 g/cc	ASTM D792
Maximum Moisture Content	0.010	0.010	Injection Molding
Linear Mold Shrinkage, Flow	0.0040 - 0.0080 cm/cm	0.0040 - 0.0080 in/in	ASTM D955
	@Thickness 3.20 mm	@Thickness 0.126 in	
Melt Flow	7.0 g/10 min	7.0 g/10 min	ASTM D1238 (G)
	@Load 5.00 kg, Temperature 200 °C	@Load 11.0 lb, Temperature 392 °F	
	18 g/10 min	18 g/10 min	ASTM D1238 (I)
	@Load 3.80 kg, Temperature 230 °C	@Load 8.38 lb, Temperature 446 °F	
	81 g/10 min	81 g/10 min	ASTM D1238 (G)
	@Load 10.0 kg, Temperature 220 °C	@Load 22.0 lb, Temperature 428 °F	

Mechanical Properties	Metric	English	Comments
Hardness, Rockwell R	110	110	ASTM D785
Tensile Strength, Yield	37.3 MPa	5400 psi	50mm/min; ASTM D638
	@Thickness 3.20 mm	@Thickness 0.126 in	
Elongation at Break	40 %	40 %	50mm/min; ASTM D638
	@Thickness 3.20 mm	@Thickness 0.126 in	
Elongation at Yield	5.0 %	5.0 %	50mm/min; ASTM D638
	@Thickness 3.20 mm	@Thickness 0.126 in	
Tensile Modulus	2.44 GPa	354 ksi	1mm/min; ASTM D638
	@Thickness 3.20 mm	@Thickness 0.126 in	
	57.9 MPa	8390 psi	

Flexural Yield Strength Mechanical Properties	Metric @ Thickness 3.20 mm	English @ Thickness 0.126 in	15mm/min: ASTM D790 Comments
Flexural Modulus	2.65 GPa @Thickness 3.20 mm	384 ksi @Thickness 0.126 in	15mm/min; ASTM D790
Izod Impact, Notched	0.294 J/cm @Thickness 6.40 mm, Temperature -30.0 °C	0.551 ft-lb/in @Thickness 0.252 in, Temperature -22.0 °F	ASTM D256
	0.392 J/cm @Thickness 3.20 mm, Temperature -30.0 °C	0.735 ft-lb/in @Thickness 0.126 in, Temperature -22.0 °F	ASTM D256
	0.490 J/cm @Thickness 6.40 mm, Temperature 23.0 °C	0.918 ft-lb/in @Thickness 0.252 in, Temperature 73.4 °F	ASTM D256
	0.686 J/cm @Thickness 3.20 mm, Temperature 23.0 °C	1.29 ft-lb/in @Thickness 0.126 in, Temperature 73.4 °F	ASTM D256

Thermal Properties	Metric	English	Comments
Deflection Temperature at 0.46 MPa (66 psi)	91.0 °C @Thickness 6.40 mm	196 °F @Thickness 0.252 in	Unannealed; ASTM D648
Deflection Temperature at 1.8 MPa (264 psi)	81.0 °C @Thickness 6.40 mm	178 °F @Thickness 0.252 in	Unannealed; ASTM D648
Vicat Softening Point	93.0 °C @Load 5.00 kg	199 °F @Load 11.0 lb	50°C/h; ASTM D1525
UL RTI, Electrical	50.0 °C @Thickness >=1.50 mm	122 °F @Thickness >=0.0591 in	
	50.0 °C @Thickness >=3.00 mm	122 °F @Thickness >=0.118 in	
UL RTI, Mechanical with Impact	50.0 °C @Thickness >=1.50 mm	122 °F @Thickness >=0.0591 in	
	50.0 °C @Thickness >=3.00 mm	122 °F @Thickness >=0.118 in	
UL RTI, Mechanical without Impact	50.0 °C	122 °F	

Thermal Properties	@Thickness >=1.50 mm Metric	@Thickness >=0.0591 English	Comments
	50.0 °C	122 °F	
	@Thickness >=3.00 mm	@Thickness >=0.118 in	
Flammability, UL94	HB	HB	
	@Thickness >=1.50 mm	@Thickness >=0.0591 in	
	HB	HB	
	@Thickness >=3.00 mm	@Thickness >=0.118 in	

Electrical Properties	Metric	English	Comments
Volume Resistivity	1.00e+14 ohm-cm	1.00e+14 ohm-cm	
Dielectric Strength	40.0 kV/mm	1020 kV/in	
Arc Resistance	120 - 180 sec	120 - 180 sec	ASTM D495
Hot Wire Ignition, HWI	7.0 - 15 sec	7.0 - 15 sec	
	@Thickness >=1.50 mm	@Thickness >=0.0591 in	
	15 - 30 sec	15 - 30 sec	
	@Thickness >=3.00 mm	@Thickness >=0.118 in	
High Amp Arc Ignition, HAI	60 - 120 arcs	60 - 120 arcs	
	@Thickness 1.50 mm	@Thickness 0.0591 in	
	>= 120 arcs	>= 120 arcs	
	@Thickness 3.00 mm	@Thickness 0.118 in	
High Voltage Arc-Tracking Rate, HVTR	25.4 - 50.0 mm/min	1.00 - 1.97 in/min	

Processing Properties	Metric	English	Comments
Rear Barrel Temperature	170 - 190 °C	338 - 374 °F	Injection Molding
Middle Barrel Temperature	180 - 200 °C	356 - 392 °F	Injection Molding
Front Barrel Temperature	190 - 210 °C	374 - 410 °F	Injection Molding
Nozzle Temperature	190 - 220 °C	374 - 428 °F	Injection Molding
Melt Temperature	190 - 220 °C	374 - 428 °F	Injection Molding
Mold Temperature	40.0 - 70.0 °C	104 - 158 °F	Injection Molding

Drying Temperature Processing Properties	80.0 °C Metric	176 °F English	Injection Molding Comments
Dry Time	2.00 - 4.00 hour	2.00 - 4.00 hour	Injection Molding
Back Pressure	29.4 - 58.8 MPa	4260 - 8530 psi	Injection Molding
Screw Speed	30 - 60 rpm	30 - 60 rpm	Injection Molding

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