

LG Chemical HG173 ABS, High Surface Gloss

Category : Polymer , Thermoplastic , ABS Polymer , Acrylonitrile Butadiene Styrene (ABS), Molded

Material Notes:

Feature: Injection Molding, High Surface Gloss
 Application: Electric & Electronic Products)
 CAS No. 9003-56-9
 Information provided by LG Chemical

Order this product through the following link:

http://www.lookpolymers.com/polymer_LG-Chemical-HG173-ABS-High-Surface-Gloss.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 - 0.0070 cm/cm @Thickness 3.20 mm	0.0040 - 0.0070 in/in @Thickness 0.126 in	ASTM D955
Melt Flow	25 g/10 min @Load 10.0 kg, Temperature 220 Å°C	25 g/10 min @Load 22.0 lb, Temperature 428 Å°F	ASTM D1238

Mechanical Properties	Metric	English	Comments
Hardness, Rockwell R	110	110	ASTM D785
Tensile Strength, Yield	46.1 MPa @Thickness 3.20 mm	6680 psi @Thickness 0.126 in	50 mm/min; ASTM D638
Elongation at Break	40 % @Thickness 3.20 mm	40 % @Thickness 0.126 in	50 mm/min; ASTM D638
Tensile Modulus	2.35 GPa @Thickness 3.20 mm	341 ksi @Thickness 0.126 in	1 mm/min; ASTM D638
Flexural Yield Strength	74.5 MPa @Thickness 3.20 mm	10800 psi @Thickness 0.126 in	15 mm/min; ASTM D790
Flexural Modulus	2.65 GPa @Thickness 3.20 mm	384 ksi @Thickness 0.126 in	15 mm/min; ASTM D790
Izod Impact, Notched	2.35 J/cm @Thickness 6.40 mm, Temperature 23.0 Å°C	4.41 ft-lb/in @Thickness 0.252 in, Temperature 73.4 Å°F	ASTM D256
	2.45 J/cm	4.59 ft-lb/in	ASTM D256

Mechanical Properties	Metric @Thickness 3.20 mm, Temperature 23.0 Â°C	English @Thickness 0.126 in, Temperature 73.4 Â°F	Comments
Izod Impact, Unnotched	1.08 J/cm	2.02 ft-lb/in	ASTM D256
	@Thickness 6.40 mm, Temperature -30.0 Â°C	@Thickness 0.252 in, Temperature -22.0 Â°F	
	1.08 J/cm	2.02 ft-lb/in	ASTM D256
	@Thickness 3.20 mm, Temperature -30.0 Â°C	@Thickness 0.126 in, Temperature -22.0 Â°F	

Thermal Properties	Metric	English	Comments
Deflection Temperature at 1.8 MPa (264 psi)	85.0 Â°C	185 Â°F	Unannealed; ASTM D648
	@Thickness 6.40 mm	@Thickness 0.252 in	
	89.0 Â°C	192 Â°F	ASTM D648
	@Thickness 6.40 mm	@Thickness 0.252 in	
Vicat Softening Point	94.0 Â°C	201 Â°F	50Â°C/h; ASTM D1525
	@Load 5.00 kg	@Load 11.0 lb	
UL RTI, Electrical	60.0 Â°C	140 Â°F	UL 746B
	@Thickness >=1.50 mm	@Thickness >=0.0591 in	
	60.0 Â°C	140 Â°F	
	@Thickness >=3.00 mm	@Thickness >=0.118 in	
UL RTI, Mechanical with Impact	60.0 Â°C	140 Â°F	UL 746B
	@Thickness >=1.50 mm	@Thickness >=0.0591 in	
	60.0 Â°C	140 Â°F	
	@Thickness >=3.00 mm	@Thickness >=0.118 in	
UL RTI, Mechanical without Impact	60.0 Â°C	140 Â°F	UL 746B
	@Thickness >=1.50 mm	@Thickness >=0.0591 in	
	60.0 Â°C	140 Â°F	
	@Thickness >=3.00 mm	@Thickness >=0.118 in	
Flammability, UL94	HB	HB	
	@Thickness >=1.50 mm	@Thickness >=0.0591 in	
	HB	HB	

Thermal Properties	@Thickness >=3.00 mm Metric	@Thickness >=0.118 in English	Comments
Electrical Properties	Metric	English	Comments
Volume Resistivity	1.00e+15 ohm-cm	1.00e+15 ohm-cm	
Dielectric Strength	28.0 kV/mm	711 kV/in	
Arc Resistance	60 - 120 sec	60 - 120 sec	ASTM D495
Comparative Tracking Index	>= 600 V	>= 600 V	Solution A; IEC 60112
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	30 - 60 arcs	30 - 60 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	10.0 - 25.4 mm/min	0.394 - 1.00 in/min	

Processing Properties	Metric	English	Comments
Rear Barrel Temperature	180 - 200 Å°C	356 - 392 Å°F	Injection Molding
Middle Barrel Temperature	190 - 210 Å°C	374 - 410 Å°F	Injection Molding
Front Barrel Temperature	200 - 220 Å°C	392 - 428 Å°F	Injection Molding
Nozzle Temperature	200 - 230 Å°C	392 - 446 Å°F	Injection Molding
Melt Temperature	210 - 240 Å°C	410 - 464 Å°F	Injection Molding
Mold Temperature	40.0 - 70.0 Å°C	104 - 158 Å°F	Injection Molding
Drying Temperature	80.0 Å°C	176 Å°F	Injection Molding
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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