

LG Chemical HI100 ABS, High Impact

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

Material Notes:

Feature: Injection Molding, High ImpactApplication: Helmet, Pipe & Fittings, Miscellaneous Goods)CAS No. 9003-56-9Information provided by LG Chemical

Order this product through the following link:

http://www.lookpolymers.com/polymer_LG-Chemical-HI100-ABS-High-Impact.php

Physical Properties	Metric	English	Comments
Specific Gravity	1.02 g/cc	1.02 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	12 g/10 min @Load 10.0 kg, Temperature 220 Â°C	12 g/10 min @Load 22.0 lb, Temperature 428 Â°F	ASTM D1238

Mechanical Properties	Metric	English	Comments
Hardness, Rockwell R	92	92	ASTM D785
Tensile Strength, Yield	37.3 MPa @Thickness 3.20 mm	5400 psi @Thickness 0.126 in	50 mm/min; ASTM D638
Elongation at Break	30 % @Thickness 3.20 mm	30 % @Thickness 0.126 in	50 mm/min; ASTM D638
Elongation at Yield	>= 5.0 % @Thickness 3.20 mm	>= 5.0 % @Thickness 0.126 in	50 mm/min; ASTM D638
Tensile Modulus	1.61 GPa @Thickness 3.20 mm	233 ksi @Thickness 0.126 in	1 mm/min; ASTM D638
Flexural Yield Strength	57.9 MPa @Thickness 3.20 mm	8390 psi @Thickness 0.126 in	15 mm/min; ASTM D790
Flexural Modulus	1.81 GPa @Thickness 3.20 mm	263 ksi @Thickness 0.126 in	15 mm/min; ASTM D790
Izod Impact, Notched	4.22 J/cm @Thickness 6.40 mm,	7.90 ft-lb/in @Thickness 0.252 in,	ASTM D256

Mechanical Properties	Temperature 23.0 Â°C Metric	Temperature 73.4 Â°F English	Comments
	4.41 J/cm	8.27 ft-lb/in	
	@Thickness 3.20 mm, Temperature 23.0 Â°C	@Thickness 0.126 in, Temperature 73.4 Â°F	ASTM D256
Izod Impact, Unnotched	2.75 J/cm	5.14 ft-lb/in	
	@Thickness 6.40 mm, Temperature -30.0 Â°C	@Thickness 0.252 in, Temperature -22.0 Â°F	ASTM D256
	2.75 J/cm	5.14 ft-lb/in	
	@Thickness 3.20 mm, Temperature -30.0 Â°C	@Thickness 0.126 in, Temperature -22.0 Â°F	ASTM D256

Thermal Properties	Metric	English	Comments
Deflection Temperature at 1.8 MPa (264 psi)	84.0 Â°C	183 Â°F	
	@Thickness 6.40 mm	@Thickness 0.252 in	Unannealed; ASTM D648
	87.0 Â°C	189 Â°F	
	@Thickness 6.40 mm	@Thickness 0.252 in	ASTM D648
Vicat Softening Point	90.0 Â°C	194 Â°F	
	@Load 5.00 kg	@Load 11.0 lb	50Â°C/h; ASTM D1525
UL RTI, Electrical	60.0 Â°C	140 Â°F	
	@Thickness >=1.50 mm	@Thickness >=0.0591 in	UL 746B
	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	
	@Thickness >=1.50 mm	@Thickness >=0.0591 in	UL 746B
	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	
	@Thickness >=1.50 mm	@Thickness >=0.0591 in	UL 746B
	60.0 Â°C	140 Â°F	
	@Thickness >=3.00 mm	@Thickness >=0.118 in	
Flammability, UL94	HB	HB	
		@Thickness >=0.0591	

Thermal Properties	Metric	English	Comments
	HB	HB	
	@Thickness >=3.00 mm	@Thickness >=0.118 in	

Electrical Properties	Metric	English	Comments
Volume Resistivity	1.00e+15 ohm-cm	1.00e+15 ohm-cm	
Dielectric Strength	32.0 kV/mm	813 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	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	180 - 200 Â°C	356 - 392 Â°F	Injection Molding
Middle Barrel Temperature	190 - 210 Â°C	374 - 410 Â°F	Injection Molding
Front Barrel Temperature	200 - 220 Â°C	392 - 428 Â°F	Injection Molding
Nozzle Temperature	200 - 230 Â°C	392 - 446 Â°F	Injection Molding
Melt Temperature	210 - 240 Â°C	410 - 464 Â°F	Injection Molding
Mold Temperature	40.0 - 70.0 Â°C	104 - 158 Â°F	Injection Molding
Drying Temperature	80.0 Â°C	176 Â°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

Processing Properties	Metric	English	Comments
-----------------------	--------	---------	----------

Contact Songhan Plastic Technology Co.,Ltd.

Website : www.lookpolymers.com
Email : sales@lookpolymers.com
Tel : +86 021-51131842
Mobile : +86 13061808058
Skype : lookpolymers
Address : United North Road 215,Fengxian District, Shanghai City,China