

LG Chemical HI100H ABS, High Impact, High Toughness

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

Material Notes:

Feature: Injection Molding, High Impact, High Toughness
 Application: Helmet, Pipe & Fittings
 CAS No. 9003-56-9
 Information provided by LG Chemical

Order this product through the following link:

http://www.lookpolymers.com/polymer_LG-Chemical-HI100H-ABS-High-Impact-High-Toughness.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	10 g/10 min @Load 10.0 kg, Temperature 220 Å°C	10 g/10 min @Load 22.0 lb, Temperature 428 Å°F	ASTM D1238

Mechanical Properties	Metric	English	Comments
Hardness, Rockwell R	93	93	ASTM D785
Tensile Strength, Yield	38.2 MPa @Thickness 3.20 mm	5550 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
Tensile Modulus	1.69 GPa @Thickness 3.20 mm	245 ksi @Thickness 0.126 in	1 mm/min; ASTM D638
Flexural Yield Strength	61.8 MPa @Thickness 3.20 mm	8960 psi @Thickness 0.126 in	15 mm/min; ASTM D790
Flexural Modulus	1.96 GPa @Thickness 3.20 mm	284 ksi @Thickness 0.126 in	15 mm/min; ASTM D790
Izod Impact, Notched	4.22 J/cm @Thickness 6.40 mm, Temperature 23.0 Å°C	7.90 ft-lb/in @Thickness 0.252 in, Temperature 73.4 Å°F	ASTM D256
	4.90 J/cm	9.18 ft-lb/in	ASTM D256

Mechanical Properties	Metric @Thickness 3.20 mm, Temperature 23.0 Å°C	English @Thickness 0.126 in, Temperature 73.4 Å°F	Comments
Izod Impact, Unnotched	2.84 J/cm	5.33 ft-lb/in	ASTM D256
	@Thickness 6.40 mm, Temperature -30.0 Å°C	@Thickness 0.252 in, Temperature -22.0 Å°F	
	3.04 J/cm	5.69 ft-lb/in	ASTM D256
	@Thickness 3.20 mm, Temperature -30.0 Å°C	@Thickness 0.126 in, Temperature -22.0 Å°F	

Thermal Properties	Metric	English	Comments
Deflection Temperature at 1.8 MPa (264 psi)	86.0 Å°C	187 Å°F	Unannealed; ASTM D648
	@Thickness 6.40 mm	@Thickness 0.252 in	
	89.0 Å°C	192 Å°F	ASTM D648
	@Thickness 6.40 mm	@Thickness 0.252 in	
Vicat Softening Point	93.0 Å°C	199 Å°F	50Å°C/h; ASTM D1525
	@Load 5.00 kg	@Load 11.0 lb	
UL RTI, Electrical	60.0 Å°C	140 Å°F	UL 746B
UL RTI, Mechanical with Impact	60.0 Å°C	140 Å°F	UL 746B
UL RTI, Mechanical without Impact	60.0 Å°C	140 Å°F	UL 746B

Electrical Properties	Metric	English	Comments
Arc Resistance	60 - 120 sec	60 - 120 sec	ASTM D495
Comparative Tracking Index	>= 600 V	>= 600 V	Solution A; IEC 60112

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

Processing Properties	Metric	English	Comments
Block Pressure	19.4 - 58.8 MPa	7200 - 8530 psi	Injection Molding
Screw Speed	30 - 60 rpm	30 - 60 rpm	Injection Molding

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