

## LG Chemical HT700 ABS, High Stiffness

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

**Material Notes:**

Feature: Injection Molding, High Stiffness  
 Application: Electric & Electronic Products, Miscellaneous Goods  
 CAS No. 9003-56-9  
 Information provided by LG Chemical

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_LG-Chemical-HT700-ABS-High-Stiffness.php](http://www.lookpolymers.com/polymer_LG-Chemical-HT700-ABS-High-Stiffness.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	20 g/10 min @Load 10.0 kg, Temperature 220 Å°C	20 g/10 min @Load 22.0 lb, Temperature 428 Å°F	ASTM D1238

Mechanical Properties	Metric	English	Comments
Hardness, Rockwell R	113	113	ASTM D785
Tensile Strength, Yield	53.0 MPa @Thickness 3.20 mm	7680 psi @Thickness 0.126 in	50 mm/min; ASTM D638
Elongation at Break	>= 10 % @Thickness 3.20 mm	>= 10 % @Thickness 0.126 in	50 mm/min; ASTM D638
Tensile Modulus	2.38 GPa @Thickness 3.20 mm	346 ksi @Thickness 0.126 in	1 mm/min; ASTM D638
Flexural Yield Strength	86.3 MPa @Thickness 3.20 mm	12500 psi @Thickness 0.126 in	15 mm/min; ASTM D790
Flexural Modulus	2.79 GPa @Thickness 3.20 mm	405 ksi @Thickness 0.126 in	15 mm/min; ASTM D790
Izod Impact, Notched	1.96 J/cm @Thickness 6.40 mm, Temperature 23.0 Å°C	3.67 ft-lb/in @Thickness 0.252 in, Temperature 73.4 Å°F	ASTM D256
	2.16 J/cm	4.04 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	0.588 J/cm @Thickness 3.20 mm, Temperature -30.0 Â°C	1.10 ft-lb/in @Thickness 0.126 in, Temperature -22.0 Â°F	ASTM D256
	0.785 J/cm @Thickness 6.40 mm, Temperature -30.0 Â°C	1.47 ft-lb/in @Thickness 0.252 in, Temperature -22.0 Â°F	ASTM D256

Thermal Properties	Metric	English	Comments
Deflection Temperature at 1.8 MPa (264 psi)	87.0 Â°C @Thickness 6.40 mm	189 Â°F @Thickness 0.252 in	Unannealed; ASTM D648
	90.0 Â°C @Thickness 6.40 mm	194 Â°F @Thickness 0.252 in	ASTM D648
Vicat Softening Point	95.0 Â°C @Load 5.00 kg	203 Â°F @Load 11.0 lb	50Â°C/h; ASTM D1525
UL RTI, Electrical	60.0 Â°C @Thickness >=1.50 mm	140 Â°F @Thickness >=0.0591 in	UL 746B
	60.0 Â°C @Thickness >=3.00 mm	140 Â°F @Thickness >=0.118 in	
UL RTI, Mechanical with Impact	60.0 Â°C @Thickness >=1.50 mm	140 Â°F @Thickness >=0.0591 in	UL 746B
	60.0 Â°C @Thickness >=3.00 mm	140 Â°F @Thickness >=0.118 in	
UL RTI, Mechanical without Impact	60.0 Â°C @Thickness >=1.50 mm	140 Â°F @Thickness >=0.0591 in	UL 746B
	60.0 Â°C @Thickness >=3.00 mm	140 Â°F @Thickness >=0.118 in	
Flammability, UL94	HB @Thickness >=1.50 mm	HB @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	35.0 kV/mm	889 kV/in	
Arc Resistance	120 - 180 sec	120 - 180 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	>= 120 arcs	>= 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 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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