SolutionPartner

LG Chem

LUMID HI5083A(W)

Injection Molding, PA6/ABS+MF8%

Description

High Impact

Application

Electric/Electronic Components(Shaver Die)

Properties	Test Condition	Test Method	Unit	Typical Value
Physical				
Specific Gravity	23℃	ASTM D792	-	1.11
Molding Shrinkage (Flow), 3.2mm	23℃	ASTM D955	%	0.5 ~ 1.0
Melt Flow Rate		ASTM D1238	g/10min	
Water Absorption		ASTM D570	%	0.6
Mechanical				
Tensile Strength, 3.2mm		ASTM D638		
@ Yield	50mm/min		kg/cm^2	500
Tensile Elongation, 3.2mm		ASTM D638		
@ Break	50mm/min		%	37
Flexural Strength, 3.2mm	2.8mm/min	ASTM D790	kg/cm^2	744
Flexural Modulus, 3.2mm	2.8mm/min	ASTM D790	kg/cm^2	23,963
IZOD Impact Strength, 6.4mm		ASTM D256		
(Notched)	23℃		kg·cm/cm	
	-30℃		kg·cm/cm	
IZOD Impact Strength, 3.2mm		ASTM D256		
(Notched)	23℃		kg·cm/cm	10.5
	-30℃		kg·cm/cm	
Rockwell Hardness	R-Scale	ASTM D785	-	
Thermal				
Melting Temperature		ASTM D3418	℃	
Heat Deflection Temperature, 6.4mm		ASTM D648		
(Unannealed)	18.6kg		℃	89.4
	4.6kg		℃	
Coefficient of Linear Thermal Expansion		ASTM D696		
Flow			10^{-5} m/m℃	8
Cross-flow			10^{-5} m/m℃	
Flammability		UL94		
0.75mm			class	HB
1.5mm			class	HB
3.0mm			class	HB

Note) Typical values are only for material selection purpose, and variation within normal tolerances are for various colors.
Values given should not be interpreted as specification and not be used for part or tool design.
All properties, except melt flow rate are measured on injection molulded specimens and after 48 hours storage at 23℃, 50% relative humidty.

Updated : 9-Nov-09

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Electrical

Surface Resistivity		IEC 60093	Ohm
Volume Resistivity	23℃	ASTM D257	Ohm·m
Arc Resistance	23℃	ASTM D495	sec
Dielectric Strength, 1mm	23℃	ASTM D149	kV/mm
Dielectric Constant (10^6 Hz)	23℃	ASTM D150	sec

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Processing Guide (Injection Molding)

Processing Parameters		Unit	Value
Drying Temperature		℃	70 ~ 90
Drying Time		hrs	4 ~ 5
Minimum Moisture Content		%	
Melt Temperature		℃	260 ~ 275
Cylinder Temperature	Rear	℃	245 ~ 260
	Middle	℃	250 ~ 270
	Front	℃	250 ~ 270
Nozzle Temperature		℃	260 ~ 275
Mold Temperature		℃	80 ~ 100
Back Pressure		kg/cm^2	
Screw Speed		rpm	

Note) Back Pressure & Screw Speed are only mentioned as general guidelines.
These may not apply or need adjustment in specific situations such as low shot sizes, thin wall molding and gas-assist molding.

Updated : 9-Nov-09