SolutionPartner

LG Chem

LUMID GP1000B

Injection Molding, PA66

Description

General Purpose, Low Viscosity

Application

Automotive, E&E

Properties	Test Condition	Test Method	Unit	Typical Value
Physical				
Specific Gravity		ASTM D792	-	1.14
Molding Shrinkage, 3.2mm		ASTM D955	%	1.3 ~ 2.0
Melt Flow Rate		ASTM D1238	g/10min	
Water Absorption	23℃, 24hrs	ASTM D570	%	1.7
Mechanical				
Tensile Strength, 3.2mm		ASTM D638		
@ Yield	50mm/min		kg/cm^2	820
Tensile Elongation, 3.2mm		ASTM D638		
@ Break	50mm/min		%	50
Flexural Strength, 6.4mm	2.8mm/min	ASTM D790	kg/cm^2	1,150
Flexural Modulus, 6.4mm	2.8mm/min	ASTM D790	kg/cm^2	28,000
IZOD Impact Strength, 6.4mm		ASTM D256		
(Notched)	23℃		kg·cm/cm	5
	-30℃		kg·cm/cm	
IZOD Impact Strength, 3.2mm		ASTM D256		
(Notched)	23℃		kg·cm/cm	
	-30℃		kg·cm/cm	
Rockwell Hardness	R-Scale	ASTM D785	-	120
Thermal				
Melting Temperature		ASTM D3418	℃	260
Heat Deflection Temperature, 6.4mm		ASTM D648		
(Unannealed)	18.6kg		℃	75
	4.6kg		℃	230
Coefficient of Linear Thermal Expansion		ASTM D696		
Flow			10^{-5} m/m℃	8
Cross-flow			10^{-5} m/m℃	
Flammability		UL94		
0.7mm			class	V-2

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 : 1-Jun-14

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Electrical

Surface Resistivity		IEC 60093	Ohm	
Volume Resistivity	23℃	ASTM D257	Ohm·cm	1.0E+14
Arc Resistance	23℃	ASTM D495	sec	190
Dielectric Strength, 1mm	23℃	ASTM D149	kV/mm	23
Dielectric Constant (10^6 Hz)	23℃	ASTM D150		3

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Processing Guide (Injection Molding)

Processing Parameters		Unit	Value
Drying Temperature		℃	80 ~ 100
Drying Time		hrs	4 ~ 5
Maximum Moisture Content		%	0.1
Melt Temperature		℃	260 ~ 280
Cylinder Temperature	Rear	℃	255 ~ 270
	Middle	℃	260 ~ 275
	Front	℃	260 ~ 275
Nozzle Temperature		℃	260 ~ 280
Mold Temperature		℃	60 ~ 90
Back Pressure	Hydraulic Type	kg/cm^2	5~20
	Electric Type		50~200
Screw Speed		rpm	60~200

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 : 1-Jun-14