

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 °C, 24hrs	ASTM D570	%	1.7
Mechanical				
Tensile Strength, 3.2mm @ Yield	50mm/min	ASTM D638	kg/cm ²	820
Tensile Elongation, 3.2mm @ Break	50mm/min	ASTM D638	%	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 (Notched)	23 °C -30 °C	ASTM D256	kg·cm/cm kg·cm/cm	5
IZOD Impact Strength, 3.2mm (Notched)	23 °C -30 °C	ASTM D256	kg·cm/cm kg·cm/cm	
Rockwell Hardness	R-Scale	ASTM D785	-	120
Thermal				
Melting Temperature		ASTM D3418	°C	260
Heat Deflection Temperature, 6.4mm (Unannealed)	18.6kg 4.6kg	ASTM D648	°C °C	75 230
Coefficient of Linear Thermal Expansion Flow Cross-flow		ASTM D696	10 ⁻⁵ m/m °C 10 ⁻⁵ m/m °C	8
Flammability 0.7mm		UL94	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 moulded specimens and after 48 hours storage at 23 °C, 50% relative humidity.

Updated : 1-Jun-14

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Electrical

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

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Processing Guide (Injection Molding)

Processing Parameters	Unit	Value	
Drying Temperature	°C	80 ~ 100	
Drying Time	hrs	4 ~ 5	
Maximum Moisture Content	%	0.1	
Melt Temperature	°C	260 ~ 280	
Cylinder Temperature	Rear	°C	255 ~ 270
	Middle	°C	260 ~ 275
	Front	°C	260 ~ 275
Nozzle Temperature	°C	260 ~ 280	
Mold Temperature	°C	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.

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