

LUMID GP2500B(W)

Injection Molding, PA66+GF50%

Description

General Purpose

Application

Automotive(Gear Shift Housing)

Properties	Test Condition	Test Method	Unit	Typical Value
Physical				
Specific Gravity		ASTM D792	-	1.57
Molding Shrinkage, 3.2mm		ASTM D955	%	0.2~0.5
Melt Flow Rate		ASTM D1238	g/10min	
Water Absorption	23°C, 24hrs	ASTM D570	%	0.5
Mechanical				
Tensile Strength, 3.2mm		ASTM D638		
@ Break	5mm/min		kg/cm ²	2,350
Tensile Elongation, 3.2mm		ASTM D638		
@ Break	5mm/min		%	2
Flexural Strength, 3.2mm	1.3mm/min	ASTM D790	kg/cm ²	3,350
Flexural Modulus, 3.2mm	1.3mm/min	ASTM D790	kg/cm ²	145,000
IZOD Impact Strength, 6.4mm		ASTM D256		
(Notched)	23°C		kg·cm/cm	
	-30°C		kg·cm/cm	
IZOD Impact Strength, 6.4mm		ASTM D256		
(Notched)	23°C		kg·cm/cm	15
	-30°C		kg·cm/cm	
Rockwell Hardness	R-Scale	ASTM D785	-	122
Thermal				
Melting Temperature		ASTM D3418	°C	260
Heat Deflection Temperature, 6.4mm		ASTM D648		
(Unannealed)	18.6kg		°C	255
	4.6kg		°C	260
Coefficient of Linear Thermal Expansion		ASTM D696		
Flow			10 ⁻⁵ m/m °C	2
Cross-flow			10 ⁻⁵ m/m °C	
Flammability		UL94		
0.75/1.5/3.0mm			class	HB
Relative Temperature Index		UL 746B	mm	0.75 1.5 3.0
Electrical			°C	120 110 120
Mechanical with Impact			°C	120 110 120
Mechanical without Impact			°C	120 110 120

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℃	ASTM D257	Ohm·cm	1.0E+14
Arc Resistance	23℃	ASTM D495	sec	
Dielectric Strength, 1mm	23℃	ASTM D149	kV/mm	25
Dielectric Constant (10 ⁶ Hz)	23℃	ASTM D150		4

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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	℃	270 ~ 295	
Cylinder Temperature	Rear	℃	260 ~ 270
	Middle	℃	270 ~ 285
	Front	℃	270 ~ 290
Nozzle Temperature	℃	270 ~ 295	
Mold Temperature	℃	80 ~ 110	
Back Pressure	Hydraulic Type	kg/cm ²	10~30
	Electric Type		100~300
Screw Speed	rpm	60~150	

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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