

# LUMID GP2500A(W)

Injection Molding, PA6+GF50%

## Description

General Purpose

## Application

Automotive

Properties	Test Condition	Test Method	Unit	Typical Value
<b>Physical</b>				
Specific Gravity	23℃	ASTM D792	-	1.56
Molding Shrinkage, 3.2mm	23℃	ASTM D955	%	0.2 ~ 0.5
Melt Flow Rate		ASTM D1238	g/10min	
Water Absorption		ASTM D570	%	0.8
<b>Mechanical</b>				
Tensile Strength, 3.2mm @ Break	5mm/min	ASTM D638	kg/cm <sup>2</sup>	2,250
Tensile Elongation, 3.2mm @ Break	5mm/min	ASTM D638	%	2
Flexural Strength, 3.2mm	1.3mm/min	ASTM D790	kg/cm <sup>2</sup>	3,300
Flexural Modulus, 3.2mm	1.3mm/min	ASTM D790	kg/cm <sup>2</sup>	140,000
IZOD Impact Strength, 6.4mm (Notched)	23℃	ASTM D256	kg·cm/cm	
	-30℃		kg·cm/cm	
IZOD Impact Strength, 3.2mm (Notched)	23℃	ASTM D256	kg·cm/cm	15
	-30℃		kg·cm/cm	
Rockwell Hardness	R-Scale	ASTM D785	-	121
<b>Thermal</b>				
Melting Temperature		ASTM D3418	℃	220
Heat Deflection Temperature, 6.4mm (Unannealed)	18.6kg	ASTM D648	℃	210
	4.6kg		℃	
Coefficient of Linear Thermal Expansion		ASTM D696		
	Flow		10 <sup>-5</sup> m/m℃	2.8
	Cross-flow		10 <sup>-5</sup> m/m℃	
Flammability 0.75mm		UL94	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 moulded specimens and after 48 hours storage at 23℃, 50% relative humidity.

Updated : 9-Nov-09

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## Electrical

Property	Condition	Standard	Unit	Value
Surface Resistivity		IEC 60093	Ohm	
Volume Resistivity	23℃	ASTM D257	Ohm·m	1.0E+15
Arc Resistance	23℃	ASTM D495	sec	
Dielectric Strength, 1mm	23℃	ASTM D149	kV/mm	25
Dielectric Constant (10 <sup>6</sup> Hz)	23℃	ASTM D150	sec	3.8

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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 ~ 290
Cylinder Temperature	Rear	℃	250 ~ 270
	Middle	℃	260 ~ 285
	Front	℃	260 ~ 290
Nozzle Temperature		℃	260 ~ 290
Mold Temperature		℃	80 ~ 100
Back Pressure	Hydraulic	kg/cm <sup>2</sup>	10 ~ 30
	Electronic	kg/cm <sup>2</sup>	100 ~ 300
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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