

LUMID GP2130B(W)

Injection Molding, PA66+GF13%

Description

General Purpose

Application

Valve Covers

Properties	Test Condition	Test Method	Unit	Typical Value		
Physical						
Specific Gravity		ASTM D792	-	1.22		
Molding Shrinkage (Flow), 3.2mm		ASTM D955	%	0.7 ~ 1.2		
Melt Flow Rate		ASTM D1238	g/10min			
Water Absorption	23℃, 24hrs	ASTM D570	%	1		
Mechanical						
Tensile Strength, 3.2mm		ASTM D638				
@ Break	5mm/min		kg/cm ²	1,250		
Tensile Elongation, 3.2mm		ASTM D638				
@ Break	5mm/min		%	4		
Flexural Strength, 3.2mm	1.3mm/min	ASTM D790	kg/cm ²	1,700		
Flexural Modulus, 3.2mm	1.3mm/min	ASTM D790	kg/cm ²	50,000		
IZOD Impact Strength, 6.4mm (Notched)		ASTM D256				
	23℃		kg·cm/cm	5		
	-30℃		kg·cm/cm			
IZOD Impact Strength, 3.2mm (Notched)		ASTM D256				
	23℃		kg·cm/cm			
	-30℃		kg·cm/cm			
Rockwell Hardness	R-Scale	ASTM D785	-	121		
Thermal						
Melting Temperature		ASTM D3418	℃	260		
Heat Deflection Temperature, 6.4mm (Unannealed)		ASTM D648				
	18.6kg		℃	240		
	4.6kg		℃	255		
Coefficient of Linear Thermal Expansion		ASTM D696				
Flow			10 ⁻⁵ m/m℃	4		
Cross-flow			10 ⁻⁵ m/m℃			
Flammability		UL94				
0.75mm			class	HB		
1.5mm			class	HB		
3.0mm			class	HB		
Relative Temperature Index		UL 746B	mm	0.75	1.5	3.0
Electrical			℃	120	110	120
Mechanical with Impact			℃	120	110	120
Mechanical without Impact			℃	120	110	120
Glow Wire Flammability Index(GWFI)		IEC 60695-2-13				
0.8mm			℃			
1.6mm			℃			
3.2mm			℃			
Glow Wire Ignition Temp.(GWIT)		IEC 60695-2-13				
0.8mm			℃			
1.6mm			℃			
3.2mm			℃			

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.

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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

Surface Resistivity		IEC 60093	Ohm	
Volume Resistivity	23℃	ASTM D257	Ohm·m	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	sec	4

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Processing Guide (Injection Molding)

Processing Parameters		Unit	Value
Drying Temperature		℃	80 ~ 100
Drying Time		hrs	4 ~ 5
Minimum Moisture Content		%	0.09
Melt Temperature		℃	270 ~ 290
Cylinder Temperature	Rear	℃	265 ~ 275
	Middle	℃	270 ~ 280
	Front	℃	270 ~ 285
Nozzle Temperature		℃	270 ~ 280
Mold Temperature		℃	80 ~ 110
Back Pressure		kg/cm ²	300 ~ 600
Screw Speed		rpm	30 ~ 60

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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