SolutionPartner

LG Chem

LUMID GP2430A(W)

Injection Molding, PA6+GF43%

Description

General Purpose

Application

Automotive(Air Intake Manifold, Cooling Fan)

Properties	Test Condition	Test Method	Unit	Typical Value
Physical				
Specific Gravity	23℃	ASTM D792	-	1.49
Molding Shrinkage (Flow), 3.2mm	23℃	ASTM D955	%	0.3 ~ 0.7
Melt Flow Rate		ASTM D1238	g/10min	
Water Absorption		ASTM D570	%	1
Mechanical				
Tensile Strength, 3.2mm		ASTM D638		
@ Break	5mm/min		kg/cm^2	2,150
Tensile Elongation, 3.2mm		ASTM D638		
@ Break	5mm/min		%	3
Flexural Strength, 3.2mm	3mm/min	ASTM D790	kg/cm^2	3,000
Flexural Modulus, 3.2mm	3mm/min	ASTM D790	kg/cm^2	120,000
IZOD Impact Strength, 6.4mm		ASTM D256		
(Notched)	23℃		kg·cm/cm	
	-30℃		kg·cm/cm	
IZOD Impact Strength, 3.2mm		ASTM D256		
(Notched)	23℃		kg·cm/cm	14
	-30℃		kg·cm/cm	
Rockwell Hardness	R-Scale	ASTM D785	-	121
Thermal				
Melting Temperature		ASTM D3418	℃	220
Heat Deflection Temperature, 6.4mm		ASTM D648		
(Unannealed)	18.6kg		℃	210
	4.6kg		℃	
Coefficient of Linear Thermal Expansion		ASTM D696		
Flow			10^{-5} m/m℃	3.1
Cross-flow			10^{-5} m/m℃	
Flammability		UL94		
0.75mm			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 molulded specimens and after 48 hours storage at 23℃, 50% relative humidty.

Updated : 9-Nov-09

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Electrical

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	22
Dielectric Constant (10^6 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
Minimum Moisture Content		%	
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		kg/cm^2	
Screw Speed		rpm	

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 : 9-Nov-09