SolutionPartner

LG Chem

LUMID GP1100AW

Injection Molding, PA6

Description

General purpose, Low Viscosity

Application

Industrial Material, Sports Parts

Properties	Test Condition	Test Method	Unit	Typical Property
Physical				
Specific Gravity	23℃	ASTM D792	-	1.13
Molding Shrinkage, 3.2mm	23℃	ASTM D955		1.0 ~ 1.4
Water Absorption		ASTM D570	%	1.7
Mechanical				
Tensile Strength, 3.2mm		ASTM D638		
@ Yield	50mm/min		kg/cm^2	730
Tensile Elongation, 3.2mm		ASTM D638		
@ Break	50mm/min		%	> 40
Flexural Strength, 3.2mm	2.8mm/min	ASTM D790	kg/cm^2	1,050
Flexural Modulus, 3.2mm	2.8mm/min	ASTM D790	kg/cm^2	27,000
IZOD Impact Strength, 6.4mm		ASTM D256		
(Notched)	23℃		kg·cm/cm	5
Rockwell Hardness	R-Scale	ASTM D785	-	120
Thermal				
Melt Temperature		ASTM D3418	℃	220
Heat Deflection Temperature, 6.4mm		ASTM D648		
(Unannealed)	4.6kg		℃	170
Flammability		UL94		
1.5mm			class	V-2
3.0mm			class	V-2
Relative Temperature Index		UL 746B		
Electrical			℃	65
Mechanical with Impact			℃	65
Mechanical without Impact			℃	65
Electrical				
Volume Resistivity	23℃	ASTM D257	Ohm·m	1.0E+15
Arc Resistance	23℃	ASTM D495	Ohm·cm	195
Dielectric Strength, 1mm	23℃	ASTM D149	kV/mm	19
Dielectric Constant (10^6 Hz)	23℃	ASTM D150	sec	3

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 : 17-Apr-18

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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		℃	240 ~ 270
Cylinder Temperature	Rear	℃	225 ~ 245
	Middle	℃	230 ~ 260
	Front	℃	240 ~ 270
Nozzle Temperature		℃	240 ~ 270
Mold Temperature		℃	60 ~ 80
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 : 17-Apr-18