

# LUMID HI5083A(W)

Injection Molding, PA6/ABS+MF8%

## Description

High Impact

## Application

Electric/Electronic Components(Shaver Die)

Properties	Test Condition	Test Method	Unit	Typical Value
<b>Physical</b>				
Specific Gravity	23℃	ASTM D792	-	1.11
Molding Shrinkage (Flow), 3.2mm	23℃	ASTM D955	%	0.5 ~ 1.0
Melt Flow Rate		ASTM D1238	g/10min	
Water Absorption		ASTM D570	%	0.6
<b>Mechanical</b>				
Tensile Strength, 3.2mm		ASTM D638		
@ Yield	50mm/min		kg/cm <sup>2</sup>	500
Tensile Elongation, 3.2mm		ASTM D638		
@ Break	50mm/min		%	37
Flexural Strength, 3.2mm	2.8mm/min	ASTM D790	kg/cm <sup>2</sup>	744
Flexural Modulus, 3.2mm	2.8mm/min	ASTM D790	kg/cm <sup>2</sup>	23,963
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	10.5
	-30℃		kg·cm/cm	
Rockwell Hardness	R-Scale	ASTM D785	-	
<b>Thermal</b>				
Melting Temperature		ASTM D3418	℃	
Heat Deflection Temperature, 6.4mm		ASTM D648		
(Unannealed)	18.6kg		℃	89.4
	4.6kg		℃	
Coefficient of Linear Thermal Expansion		ASTM D696		
Flow			10 <sup>-5</sup> m/m℃	8
Cross-flow			10 <sup>-5</sup> m/m℃	
Flammability		UL94		
0.75mm			class	HB
1.5mm			class	HB
3.0mm			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.

# **LUMID HI5083A(W)**

**Injection Molding, PA6/ABS+MF8%**

## **Description**

High Impact

## **Application**

Electric/Electronic Components(Shaver Die)

---

The information contained herein, including, but not limited to, data, statements and typical values, are given in good faith. LG Chem makes no warranty or guarantee, expressed or implied, (i) that the result described herein will be obtained under end - use conditions, or (ii) as to the effectiveness or safety of any design incorporating LG Chem materials, products, recommendations or advice. Further, any information contained herein shall not be construed as a part of legally binding offer. Especially, the typical values should be regarded as reference values only and not as binding minimum values. Each user bear full responsibility for making its own determination as to the suitability of LG Chem's materials, products, recommendations, or advice for its own particular use. Each user must identify and perform all tests and analyses necessary to assure that its finished parts incorporating LG Chem material or products will be safe and suitable for use under end - use conditions. The data contained herein can be changed without notice as a result of the quality improvement of the products.

# LUMID HI5083A(W)

Injection Molding, PA6/ABS+MF8%

## Description

High Impact

## Application

Electric/Electronic Components(Shaver Die)

## Electrical

Surface Resistivity		IEC 60093	Ohm
Volume Resistivity	23℃	ASTM D257	Ohm·m
Arc Resistance	23℃	ASTM D495	sec
Dielectric Strength, 1mm	23℃	ASTM D149	kV/mm
Dielectric Constant (10 <sup>6</sup> Hz)	23℃	ASTM D150	sec

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.

## Processing Guide (Injection Molding)

Processing Parameters		Unit	Value
Drying Temperature		℃	70 ~ 90
Drying Time		hrs	4 ~ 5
Minimum Moisture Content		%	
Melt Temperature		℃	260 ~ 275
Cylinder Temperature	Rear	℃	245 ~ 260
	Middle	℃	250 ~ 270
	Front	℃	250 ~ 270
Nozzle Temperature		℃	260 ~ 275
Mold Temperature		℃	80 ~ 100
Back Pressure		kg/cm <sup>2</sup>	
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

The information contained herein, including, but not limited to, data, statements and typical values, are given in good faith. LG Chem makes no warranty or guarantee, expressed or implied, (i) that the result described herein will be obtained under end - use conditions, or (ii) as to the effectiveness or safety of any design incorporating LG Chem materials, products, recommendations or advice. Further, any information contained herein shall not be construed as a part of legally binding offer. Especially, the typical values should be regarded as reference values only and not as binding minimum values. Each user bear full responsibility for making its own determination as to the suitability of LG Chem's materials, products, recommendations, or advice for its own particular use. Each user must identify and perform all tests and analyses necessary to assure that its finished parts incorporating LG Chem material or products will be safe and suitable for use under end - use conditions. The data contained herein can be changed without notice as a result of the quality improvement of the products.