

# LUPOY ER1007FA (Tentative)

Injection Molding , PC

## Description

Halogen Free Flame Retardant  
PCR material 30%

## Application

IT&OA (Battery Cover/Housing)

Properties	Test Condition	Test Method	Unit	Typical Value
<b>Physical</b>				
Specific Gravity		ASTM D792	-	1.19
Molding Shrinkage (Flow), 3.2mm		ASTM D955	%	0.5 ~ 0.7
Melt Flow Rate	260 °C/2.16 kg	ASTM D1238	g/10min	12
<b>Mechanical</b>				
Tensile Strength, 3.2mm @ Yield	50mm/min	ASTM D638	kg/cm <sup>2</sup>	630
Tensile Elongation, 3.2mm @ Break	50mm/min	ASTM D638	%	70
Flexural Strength, 3.2mm	10mm/min	ASTM D790	kg/cm <sup>2</sup>	980
Flexural Modulus, 3.2mm	10mm/min	ASTM D790	kg/cm <sup>2</sup>	24,000
IZOD Impact Strength, 3.2mm (Notched)	23°C	ASTM D256	kg·cm/cm	70
	-30°C		kg·cm/cm	-
<b>Thermal</b>				
Heat Deflection Temperature, 6.4mm (Unannealed)	18.6kg	ASTM D648	°C	95
	4.6kg		°C	-
Flammability		UL94		
	0.4mm		class	V-2
	0.8mm		class	V-0
	3.0mm	class	V-0	
Relative Temperature Index		UL 746B		
	Electrical		°C	80
	Mechanical with Impact		°C	80
	Mechanical without Impact	°C	80	

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 molded specimens and after 48 hours storage at 23 °C, 50% relative humidity.

Updated : Sep-24, 2020

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## Electrical

Property	Condition	Standard	Unit	Value
Comparative Tracking Index(CTI)	Solution A	IEC 60112	Volts	-
Surface Resistivity		IEC 60093	Ohm	-
Volume Resistivity	23°C	ASTM D257	Ohm·m	-
Arc Resistance	23°C	ASTM D495	Ohm·cm	-
Dielectric Strength, 1mm	23°C	ASTM D149	kV/mm	-
Dielectric Constant (10 <sup>6</sup> Hz)	23°C	ASTM D150	sec	-

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## Processing Guide (Injection Molding)

Processing Parameters	Unit	Value	
Drying Temperature	°C	85 ~ 95	
Drying Time	hrs	3 ~ 5	
Maximum Moisture Content	%	0.04	
Melt Temperature	°C	245 ~ 310	
Cylinder Temperature	Rear	°C	245 ~ 285
	Middle	°C	260 ~ 300
	Front	°C	265 ~ 305
Nozzle Temperature	°C	270 ~ 310	
Mold Temperature	°C	70 ~ 90	
Back Pressure	kg/cm <sup>2</sup>	-	
Screw Speed	rpm	40 ~ 70	

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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