



# **LUPOY ER1006FZ**

(Tentative)

Injection Molding, PC

### **Description**

**Application** 

Halogen Free Flame Retardant, High Heat Resistance 75% PCR(Post Consumer Recycled) material

IT/OA Housing and Components (Adaptor)

Properties	<b>Test Condition</b>	Test Method	Unit	Typical Value
Physical				
Specific Gravity		ASTM D792	-	1.2
Molding Shrinkage (Flow), 3.2mm		ASTM D955	%	0.5~0.7
Melt Flow Rate	300℃/1.2kg	ASTM D1238	g/10min	18
Mechanical				
Tensile Strength, 3.2mm		ASTM D638		
@ Yield	50mm/min		kg/cm <sup>2</sup>	580
Tensile Elongation, 3.2mm		ASTM D638		
@ Break	50mm/min		%	80
Flexural Strength, 3.2mm	10mm/min	ASTM D790	kg/cm <sup>2</sup>	970
Flexural Modulus, 3.2mm	10mm/min	ASTM D790	kg/cm <sup>2</sup>	21,000
IZOD Impact Strength, 3.2mm		ASTM D256	•	
(Notched)	<b>23</b> ℃		kg-cm/cm	65
	-30°C		kg-cm/cm	
Rockwell Hardness	R-Scale	ASTM D785	-	118
Thermal				
Heat Deflection Temperature, 6.4mm		ASTM D648		
(Unannealed)	18.6kg		$^{\circ}$	128
,	4.6kg		${\mathbb C}$	
Vicat Softening Temperature	<u> </u>	ASTM D1525		
	5kg, 50℃/h		${\mathbb C}$	137
Ball Pressure Temperature	<u> </u>	IEC 60695-10-2	${\mathbb C}$	125
Flammability		UL94		
1.0mm			class	V-0
1.5mm			class	V-0
Relative Temperature Index (RTI)		UL 746B		
Electrical			${\mathbb C}$	125
Mechanical with Impact			$^{\circ}$	110
Mechanical without Impact			${\mathbb C}$	125

Note) Typical values are only for material selection purpose, and variation within normal tolerances are for various colors.

Updated : Jun-23, 2020

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 °C, 50% relative humidty.





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#### **Electrical**

Comparative Tracking Index(CTI)		UL746	PLC code	2
Surface Resistivity		IEC 60093	Ohm	-
Volume Resistivity	23℃	ASTM D257	Ohm∙m	>1.0E+16
Arc Resistance	23℃	ASTM D495	PLC code	7

Note) Typical values are only for material selection purpose, and variation within normal tolerances are for various colors.

#### **Processing Guide (Injection Molding)**

Processi	ng Parameters	Unit	Value
Drying Temperature		$^{\circ}$	100 ~ 120
Drying Time		hrs	3 ~ 5
Maximum Moisture Content		%	0.02
Melt Temperature		$^{\circ}$	300 ~ 320
	Rear	$^{\circ}$	260 ~ 280
Cylinder Temperature	Middle	$^{\circ}$	280 ~ 300
		$^{\circ}$	300 ~ 320
Nozzle Temperature		$^{\circ}$	300 ~ 320
Mold Temperature		$^{\circ}$	80 ~ 120
Back Pressure		kg/cm <sup>2</sup>	-
Screw Speed		rpm	40 ~ 70

Note) Back Pressure & Screw Speed are only mentioned as general guidelines.

Updated : Jun-23, 2020

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All properties, except melt flow rate are measured on injection molulded specimens and after 48 hours storage at 23 °C, 50% relative humidty.

These may not apply or need adjustment in specific situations such as low shot sizes, thin wall molding and gas-assist molding.