

LUPOY ER5006N

Injection Molding, PCR-PC/ABS, Non-flame Retardancy

Description

Post Consumer Recycled 50% , High Heat Resistance

Application

Auto / Exterior / e-Mobility

Properties	Condition	Method	Unit	Typical Value
Physical				
Specific Gravity	23°C	ISO 1183		1.13
Shrinkage		ISO 294-4		
Flow	2.0mm		%	0.5~0.8
Cross-flow	2.0mm		%	0.5~0.8
Melt Flow Rate	260°C, 5kg	ISO 1133	g/10min	23
Water Absorption	23°C, 50% RH	ISO 62	%	0.20
Mechanical				
Tensile Strength		ISO 527		
@Yield	4.0mm, 50mm/min		MPa	51
@Break	4.0mm, 50mm/min		MPa	48
Tensile Elongation		ISO 527		
@Yield	4.0mm, 50mm/min		%	4.6
@Break	4.0mm, 50mm/min		%	93
Tensile Modulus	4.0mm, 1mm/min	ISO 527	MPa	2,200
Flexural Strength	4.0mm, 2.0mm/min	ISO 178	MPa	83
Flexural Modulus	4.0mm, 2.0mm/min	ISO 178	MPa	2,260
IZOD Impact Strength		ISO 180		
4.0mm, Notched	23°C		kJ/m ²	50
	-30°C		kJ/m ²	42
	-40°C		kJ/m ²	40
Charpy Impact Strength		ISO 179		
4.0mm, Notched	23°C		kJ/m ²	48
	-30°C		kJ/m ²	35
	-40°C		kJ/m ²	41
Rockwell Hardness	R-Scale	ISO 2039		119
Shore Hardness		ISO 48-4		
Shore D	15s			
Thermal				
Melt Temperature	Peak	ISO 11357-3	°C	
Heat Deflection Temperature		ISO 75		
0.45MPa	4.0mm, Flatwise Unannealed		°C	126
1.8MPa	4.0mm, Flatwise Unannealed		°C	99
Vicat Softening Temperature	50N, 50°C/hr	ISO 306	°C	121
Coefficient of Linear Thermal Expansion		ISO 11359		
Flow	-30°C ~ 80°C		10 ⁻⁶ m/m·°C	86
Cross-flow	-30°C ~ 80°C		10 ⁻⁶ m/m·°C	85
Thermal Conductivity		ASTM E1461		
In-plane			W/m·K	

Electrical

Comparative Tracking Index(CTI)	Solution A	UL746A	PLC	
Surface Resistivity	23°C	IEC60093	Ohm	1E+15
Volume Resistivity	23°C	IEC60093	Ohm·m	1E+15
Dielectric Constant	23°C	ASTM D150		2.8
Dielectric Strength	23°C, 2.0mm	ASTM D149	kV/mm	20
EMI Shield	1GHz, 3.0mm	ASTM D4935	dB	

Note) Typical values can be used only for the purpose of selecting material, and there can be variation within normal tolerances for various colors.

Values given should not be interpreted as specification and not be used for designing part or tool.

All properties, except melt flow rate are measured by injection molded specimens after 48 hours storage at 23°C, 50% relative humidity.

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Processing Conditions (Injection Molding)

Processing Parameters		Unit	Value
Drying Temperature		°C	80 ~ 100
Drying Time		hrs	4~6
Maximum Moisture Content		%	0.02
Melt Temperature		°C	240 ~ 270
Cylinder Temperature	Rear	°C	240 ~ 270
	Middle	°C	245 ~ 275
	Front	°C	245 ~ 275
Nozzle Temperature		°C	245 ~ 275
Mold Temperature		°C	50 ~ 70

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