SolutionPartner

LG Chem

LUPOY ER1007F

Injection Molding , PC

Description

Halogen Free Flame Retardant
PCR material 30%

Application

IT&OA (Battery Pack Housing)

Properties	Test Condition	Test Method	Unit	Typical Value
Physical				
Specific Gravity		ASTM D792	-	1.19
Molding Shrinkage (Flow), 3.2mm		ASTM D955	%	0.5 ~ 0.7
Melt Flow Rate	300℃/1.2 kg	ASTM D1238	g/10min	25
Mechanical				
Tensile Strength, 3.2mm		ASTM D638		
@ Yield	50mm/min		kg/cm^2	600
Tensile Elongation, 3.2mm		ASTM D638		
@ Break	50mm/min		%	40
Flexural Strength, 3.2mm	10mm/min	ASTM D790	kg/cm^2	970
Flexural Modulus, 3.2mm	10mm/min	ASTM D790	kg/cm^2	26,000
IZOD Impact Strength, 3.2mm		ASTM D256		
(Notched)	23℃		kg·cm/cm	60
	-30℃		kg·cm/cm	-
Thermal				
Heat Deflection Temperature, 6.4mm		ASTM D648		
(Unannealed)	18.6kg		℃	96
	4.6kg		℃	-
Flammability		UL94		
0.4mm			class	V-2
0.8mm			class	V-0
3.0mm			class	V0
Relative Temperature Index		UL 746B		
Electrical			℃	80
Mechanical with Impact			℃	80
Mechanical without Impact			℃	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 molulded specimens and after 48 hours storage at 23℃, 50% relative humidty.

Updated : Jul-02, 2020

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Electrical

Comparative Tracking Index(CTI)	Solution A	IEC 60112	Volts
Surface Resistivity		IEC 60093	Ohm
Volume Resistivity	23℃	ASTM D257	Ohm·m
Arc Resistance	23℃	ASTM D495	Ohm·cm
Dielectric Strength, 1mm	23℃	ASTM D149	kV/mm
Dielectric Constant (10^6 Hz)	23℃	ASTM D150	sec

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Processing Guide (Injection Molding)

Processing Parameters		Unit	Value
Drying Temperature		℃	85 ~ 95
Drying Time		hrs	3 ~ 5
Maximum Moisture Content		%	0.04
Melt Temperature		℃	245 ~ 285
Cylinder Temperature	Rear	℃	250 ~ 260
	Middle	℃	250 ~ 280
	Front	℃	260 ~ 280
Nozzle Temperature		℃	250 ~ 280
Mold Temperature		℃	70 ~ 90
Back Pressure		kg/cm^2	-
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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