

SUMIKASUPER® LCP E6807LHF

Liquid Crystal Polymer
Sumitomo Chemical Co., Ltd.

Message:

SUMIKASUPER LCP is a thermotropic liquid crystalline polyester, showing the highest heat resistance among engineering plastics.

General Information			
UL YellowCard	E54705-100988634	E249884-100962037	
Filler / Reinforcement	Long Glass Fiber		
Features	Good Chemical Resistance		
	Good Moldability		
	Good Wear Resistance		
	High Flow		
	High Rigidity		
	High Strength		
	Low Viscosity		
	Low Warpage		
Uses	Bobbins		
	Connectors		
	Electrical/Electronic Applications		
Forms	Pellets		
Processing Method	Injection Molding		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.67	g/cm³	ASTM D792
Molding Shrinkage			Internal Method
Flow	0.11	%	
Across Flow	0.63	%	
Water Absorption (Saturation)	0.020	%	ASTM D570
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness (R-Scale)	101		ASTM D785
Mechanical	Nominal Value	Unit	Test Method
Tensile Strength (Yield)	134	MPa	ASTM D638
Tensile Elongation (Break)	4.5	%	ASTM D638
Flexural Modulus			ASTM D790
23°C	12100	MPa	
200°C	4500	MPa	
Flexural Strength			ASTM D790
Yield, 23°C	145	MPa	

Yield, 200°C	29.0	MPa	
Shear Strength	53.0	MPa	ASTM D732
Poisson's Ratio	0.41		ASTM E132
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact (6.40 mm)	120	J/m	ASTM D256
Unnotched Izod Impact (6.40 mm)	340	J/m	ASTM D256
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load (1.8 MPa, Unannealed)	270	°C	ASTM D648
CLTE			Internal Method
Flow : 150°C	1.0E-5	cm/cm/°C	
Transverse : 150°C	6.3E-5	cm/cm/°C	
Thermal Conductivity	0.56	W/m/K	JIS R2618
Electrical	Nominal Value	Unit	Test Method
Volume Resistivity	1.0E+15	ohms · cm	ASTM D257
Dielectric Constant			ASTM D150
1 kHz	4.70		
1 MHz	4.10		
Dissipation Factor			ASTM D150
1 kHz	0.024		
1 MHz	0.030		
Arc Resistance	180	sec	ASTM D495
Comparative Tracking Index	150	V	IEC 60112
Flammability	Nominal Value	Unit	Test Method
Flame Rating (0.300 mm, All colors)	V-0		UL 94
Oxygen Index	45	%	JIS K7201
Additional Information	Nominal Value	Unit	Test Method
Soldering Resistance	295	°C	Internal Method
Injection	Nominal Value	Unit	
Drying Temperature	130	°C	
Drying Time	4.0 to 24	hr	
Rear Temperature	280 to 320	°C	
Middle Temperature	320 to 340	°C	
Front Temperature	340 to 360	°C	
Nozzle Temperature	340 to 360	°C	
Processing (Melt) Temp	340	°C	
Injection Pressure	80.0 to 160	MPa	
Injection Rate	Moderate-Fast		
Holding Pressure	20.0 to 40.0	MPa	
Back Pressure	1.00 to 5.00	MPa	
Screw Speed	50 to 100	rpm	

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