SUMIKASUPER® LCP E5006L

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	E54705-100988603	E249884-100962011	
Filler / Reinforcement	Long Glass Fiber		
Features	Good Chemical Resistance Good Wear Resistance High Heat Resistance High Rigidity Low Viscosity		
Uses	Bobbins Electrical/Electronic Applications Optical Data Storage		
Forms	Pellets		
Processing Method	Injection Molding		
Physical	**Nominal Value**	**Unit**	**Test Method**
Specific Gravity	1.60	g/cm³	ASTM D792
Molding Shrinkage			Internal Method
Flow	0.020	%	
Across Flow	0.86	%	
Water Absorption (Saturation)	0.020	%	ASTM D570
Hardness	**Nominal Value**	**Unit**	**Test Method**
Rockwell Hardness (R-Scale)	90		ASTM D785
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Strength (Yield)	151	MPa	ASTM D638
Tensile Elongation (Break)	4.5	%	ASTM D638
Flexural Modulus (23°C)	14200	MPa	ASTM D790
Flexural Strength (Yield, 23°C)	152	MPa	ASTM D790
Poisson's Ratio	0.48		ASTM E132
Impact	**Nominal Value**	**Unit**	**Test Method**
Notched Izod Impact (6.40 mm)	110	J/m	ASTM D256
Unnotched Izod Impact (6.40 mm)	380	J/m	ASTM D256
Thermal	**Nominal Value**	**Unit**	**Test Method**

Deflection Temperature Under Load (1.8 MPa, Unannealed)	355	°C	ASTM D648
CLTE			Internal Method
Flow : 150°C	1.7E-5	cm/cm/°C	
Transverse : 150°C	7.3E-5	cm/cm/°C	
Thermal Conductivity	0.54	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 MHz	3.70		
1.00 GHz	3.40		
Dissipation Factor			ASTM D150
1 MHz	0.022		
1.00 GHz	4.0E-3		
Flammability	**Nominal Value**	**Unit**	**Test Method**
Flame Rating (0.300 mm, All colors)	V-0		UL 94
Additional Information	**Nominal Value**	**Unit**	**Test Method**
Soldering Resistance	350	°C	Internal Method
Injection	**Nominal Value**	**Unit**	
Drying Temperature	130	°C	
Drying Time	4.0 to 24	hr	
Rear Temperature	350 to 370	°C	
Middle Temperature	370 to 390	°C	
Front Temperature	390 to 410	°C	
Nozzle Temperature	390 to 410	°C	
Processing (Melt) Temp	400	°C	
Mold Temperature	40.0 to 160	°C	
Injection Pressure	120 to 160	MPa	
Injection Rate	Moderate-Fast		
Holding Pressure	40.0 to 60.0	MPa	
Back Pressure	1.00 to 5.00	MPa	
Screw Speed	50 to 100	rpm	

Recommended distributors for this material

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