

SUMIKASUPER® LCP E5008

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	E54705-100988605	E249884-100962013	
Filler / Reinforcement	Glass Fiber		
Features	Good Adhesion		
	Good Chemical Resistance		
	Good Moldability		
	High Heat Resistance		
	High Rigidity		
	High Strength		
	Low Shrinkage		
	Low to No Fumes		
	Low to No Water Absorption		
	Low Viscosity		
	Recyclable Material		
	Ultrasonic Weldable		
Uses	Bobbins		
	Connectors		
	Electrical Parts		
	Electrical/Electronic Applications		
	Optical Data Storage		
Processing Method	Injection Molding		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.69	g/cm³	ASTM D792
Molding Shrinkage			Internal Method
Flow	0.060	%	
Across Flow	1.3	%	
Water Absorption (Saturation)	0.020	%	ASTM D570
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness (R-Scale)	89		ASTM D785
Mechanical	Nominal Value	Unit	Test Method
Tensile Strength (Yield)	111	MPa	ASTM D638
Tensile Elongation (Break)	4.8	%	ASTM D638

Flexural Modulus			ASTM D790
23°C	12200	MPa	
200°C	5880	MPa	
Flexural Strength			ASTM D790
23°C	127	MPa	
200°C	39.0	MPa	
Shear Strength	50.0	MPa	ASTM D732
Poisson's Ratio	0.41		ASTM E132
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact (6.40 mm)	88	J/m	ASTM D256
Unnotched Izod Impact (6.40 mm)	440	J/m	ASTM D256
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load (1.8 MPa, Unannealed)	335	°C	ASTM D648
CLTE			Internal Method
Flow : 150°C	1.0E-6	cm/cm/°C	
Transverse : 150°C	6.4E-5	cm/cm/°C	
Thermal Conductivity	0.56	W/m/K	JIS R2618
RTI Elec (3.20 mm)	240	°C	UL 746
RTI Imp (3.20 mm)	220	°C	UL 746
RTI Str (3.20 mm)	240	°C	UL 746
Electrical	Nominal Value	Unit	Test Method
Volume Resistivity	1.0E+15	ohms · cm	ASTM D257
Dielectric Strength ¹	> 40	kV/mm	Internal Method
Dielectric Constant			ASTM D150
1 kHz	4.70		
1 MHz	4.20		
Dissipation Factor			ASTM D150
1 kHz	0.015		
1 MHz	0.031		
Arc Resistance	128	sec	ASTM D495
Comparative Tracking Index	175	V	IEC 60112
Flammability	Nominal Value	Unit	Test Method
Flame Rating (0.300 mm, ALL)	V-0		UL 94
Oxygen Index	47	%	JIS K7201
Additional Information	Nominal Value	Unit	Test Method
Soldering Resistance	340	°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
NOTE		

1. Method A (Short-Time)

The information and data on this page are provided by manufacturers and document providers. SHANGHAI SUSHENG assumes no legal liability. It is strongly recommended to verify all technical data with material suppliers before final material selection. All rights belong to the original authors. If any infringement occurs, please contact us immediately.

Recommended distributors for this material

Susheng Import & Export Trading Co.,Ltd.

Tel: +86 21 5895 8519

Phone: +86 13424755533

Email: sales@su-jiao.com

No. 215, Lianhe North Road, Fengxian District, Shanghai, China

