SUMIKASUPER® LCP E7008

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	E54705-100988649	E249884-100962049	
Filler / Reinforcement	Glass Fiber		
Features	Good Adhesion		
	Good Chemical Resistance		
	Good Dimensional Stability		
	Good Flow		
	Good Heat Aging Resistance		
	Good Moldability		
	High Heat Resistance		
	High Temperature Strength		
	Low Viscosity		
	Weldable		
Uses	Appliances		
	Automotive Applications		
	Electrical/Electronic Applications		
	Engineering Parts		
	Food Containers		
Forms	Pellets		
Processing Method	Injection Molding		
Physical	**Nominal Value**	**Unit**	**Test Method**
Specific Gravity	1.71	g/cm³	ASTM D792
Molding Shrinkage			Internal Method
Flow	0.17	%	
Across Flow	1.1	%	
Water Absorption (Saturation)	0.020	%	ASTM D570
Hardness	**Nominal Value**	**Unit**	**Test Method**
Rockwell Hardness (R-Scale)	107		ASTM D785
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Strength (Yield)	127	MPa	ASTM D638
Tensile Elongation (Break)	4.2	%	ASTM D638
Flexural Modulus			ASTM D790

23°C	11300	MPa	
200°C	3230	MPa	
Flexural Strength			ASTM D790
Yield, 23°C	138	MPa	
Yield, 200°C	24.0	MPa	
Shear Strength	49.0	MPa	ASTM D732
Poisson's Ratio	0.42		ASTM E132
Impact	**Nominal Value**	**Unit**	**Test Method**
Notched Izod Impact (6.40 mm)	56	J/m	ASTM D256
Unnotched Izod Impact (6.40 mm)	280	J/m	ASTM D256
Thermal	**Nominal Value**	**Unit**	**Test Method**
Deflection Temperature Under Load (1.8 MPa, Unannealed)	242	°C	ASTM D648
CLTE			Internal Method
Flow : 150°C	8.0E-6	cm/cm/°C	
Transverse : 150°C	7.8E-5	cm/cm/°C	
Thermal Conductivity	0.56	W/m/K	JIS R2618
RTI Elec (3.20 mm)	130	°C	UL 746
RTI Imp (3.20 mm)	130	°C	UL 746
RTI Str (3.20 mm)	130	°C	UL 746
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	125	sec	ASTM D495
Comparative Tracking Index	155	V	IEC 60112
Flammability	**Nominal Value**	**Unit**	**Test Method**
Flame Rating (0.380 mm)	V-0		UL 94
Oxygen Index	49	%	JIS K7201
Additional Information	**Nominal Value**	**Unit**	**Test Method**
Soldering Resistance	275	°C	Internal Method
Injection	**Nominal Value**	**Unit**	
Drying Temperature	120 to 150	°C	
Drying Time	3.0	hr	
Suggested Max Regrind	30	%	
Rear Temperature	280 to 300	°C	
Middle Temperature	300 to 320	°C	
Front Temperature	320 to 340	°C	

Nozzle Temperature	320 to 340	°C
Processing (Melt) Temp	320	°C
Mold Temperature	70.0 to 160	°C
Injection Pressure	78.0 to 157	MPa
Injection Rate	Moderate-Fast	
Holding Pressure	20.0 to 39.0	MPa
Back Pressure	0.980 to 4.90	MPa
Screw Speed	50 to 100	rpm

Recommended distributors for this material

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