

SUMIKASUPER® LCP E6406

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			
Filler / Reinforcement	Carbon fiber reinforced material		
Features	Good dimensional stability		
	Conductivity		
	Low viscosity		
	Rigidity, high		
	High temperature strength		
	Weldable		
	Good formability		
	Good heat aging resistance		
	Good adhesion		
	Good chemical resistance		
	Heat resistance, high		
Uses	Electrical/Electronic Applications		
	Electrical appliances		
	Engineering accessories		
	Application in Automobile Field		
	Food container		
Forms	Particle		
Processing Method	Injection molding		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.46	g/cm ³	ASTM D792
Molding Shrinkage			ASTM D955
Flow	0.030	%	ASTM D955
Transverse flow	0.51	%	ASTM D955
Water Absorption (Saturation)	0.020	%	ASTM D570
Mechanical	Nominal Value	Unit	Test Method
Tensile Strength	151	MPa	ASTM D638
Tensile Elongation (Break)	4.0	%	ASTM D638
Flexural Modulus	17800	MPa	ASTM D790
Flexural Strength	162	MPa	ASTM D790
Impact	Nominal Value	Unit	Test Method

Unnotched Izod Impact	330	J/m	ASTM D256
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load (1.8 MPa, Unannealed)	287	°C	ASTM D648
Additional Information			
Mold Shrinkage, Sumitomo Chemical Method, Machine Direction: 0.3 mils/inMold Shrinkage, Sumitomo Chemical Method, Transverse Direction: 5.1 mils/in			
Injection	Nominal Value	Unit	
Drying Temperature	120 - 150	°C	
Drying Time	3.0	hr	
Suggested Max Regrind	30	%	
Rear Temperature	300 - 320	°C	
Middle Temperature	320 - 350	°C	
Front Temperature	340 - 370	°C	
Nozzle Temperature	340 - 370	°C	
Mold Temperature	70.0 - 160	°C	
Injection Pressure	78.0 - 157	MPa	
Injection Rate	Moderate-Fast		
Holding Pressure	20.0 - 39.0	MPa	
Back Pressure	0.980 - 4.90	MPa	
Screw Speed	50 - 100	rpm	

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