

SUMIKASUPER® LCP E6406

Liquid Crystal Polymer

Sumitomo Chemical Co., Ltd.



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Technical Data

Product Description

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

General

Material Status	• Commercial: Active
Literature ¹	• Processing - Injection Molding (English)
Search for UL Yellow Card	• Sumitomo Chemical Co., Ltd. • SUMIKASUPER® LCP
Availability	• Asia Pacific • Europe • North America
Filler / Reinforcement	• Carbon Fiber Reinforcement
Features	• Electrically Conductive • Good Heat Aging Resistance • Good Adhesion • Good Moldability • Good Chemical Resistance • High Heat Resistance • Good Dimensional Stability • High Rigidity
Uses	• Appliances • Electrical/Electronic Applications • Automotive Applications • Engineering Parts • Food Containers
Forms	• Pellets
Processing Method	• Injection Molding

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Specific Gravity	1.46	1.46 g/cm ³	ASTM D792
Molding Shrinkage			ASTM D955
Flow	0.00030 in/in	0.030 %	
Across Flow	0.0051 in/in	0.51 %	
Water Absorption (Saturation)	0.020 %	0.020 %	ASTM D570
Mechanical	Nominal Value (English)	Nominal Value (SI)	Test Method
Tensile Strength	21900 psi	151 MPa	ASTM D638
Tensile Elongation (Break)	4.0 %	4.0 %	ASTM D638
Flexural Modulus	2.58E+6 psi	17800 MPa	ASTM D790
Flexural Strength	23500 psi	162 MPa	ASTM D790
Impact	Nominal Value (English)	Nominal Value (SI)	Test Method
Unnotched Izod Impact	6.2 ft-lb/in	330 J/m	ASTM D256
Thermal	Nominal Value (English)	Nominal Value (SI)	Test Method
Deflection Temperature Under Load 264 psi (1.8 MPa), Unannealed	549 °F	287 °C	ASTM D648

Additional Information

Mold Shrinkage, Sumitomo Chemical Method, Machine Direction: 0.3 mils/in
Mold Shrinkage, Sumitomo Chemical Method, Transverse Direction: 5.1 mils/in

Injection	Nominal Value (English)	Nominal Value (SI)
Drying Temperature	248 to 302 °F	120 to 150 °C
Drying Time	3.0 hr	3.0 hr
Suggested Max Regrind	30 %	30 %
Rear Temperature	572 to 608 °F	300 to 320 °C
Middle Temperature	608 to 662 °F	320 to 350 °C
Front Temperature	644 to 698 °F	340 to 370 °C
Nozzle Temperature	644 to 698 °F	340 to 370 °C
Mold Temperature	158 to 320 °F	70.0 to 160 °C
Injection Pressure	11300 to 22800 psi	78.0 to 157 MPa
Injection Rate	Moderate-Fast	Moderate-Fast
Holding Pressure	2900 to 5660 psi	20.0 to 39.0 MPa

1 of 3

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Injection	Nominal Value (English)	Nominal Value (SI)
Back Pressure	142 to 711 psi	0.980 to 4.90 MPa
Screw Speed	50 to 100 rpm	50 to 100 rpm

Notes

¹ These links provide you with access to supplier literature. We work hard to keep them up to date; however you may find the most current literature from the supplier.

² Typical properties: these are not to be construed as specifications.

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Where to Buy

Supplier

Sumitomo Chemical Co., Ltd.

The Woodlands, TX USA

Telephone: 281-298-7779

Web: <http://www.sumitomo-chem.co.jp/>

Distributor

Calsak Polymers

Telephone: 800-743-2595

Web: <http://www.calsakpolymers.com/>

Availability: North America

VELOX GmbH

VELOX is a Pan European distribution company. Contact VELOX for availability of individual products by country.

Telephone: +49-40-369-6880

Web: <http://www.velox.com/>

Availability: Europe



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– Kevin Chase, Owner & President, Chase Plastics



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