

Product Texts

LNP THERMOCOMP 8KF44VE is a Liquid Crystalline Polymer (LCP) based compound for Laser Direct Structuring application. Added features of this material are: High heat resistance for robust SMT processing. High stiffness and thin-wall flame retardant.

UL Yellow Card [E207780-104503269](https://www.ul.com/yellow-card/E207780-104503269)

Processing/Physical Characteristics	Value	Unit	Test Standard
ASTM Data			
Mold Shrinkage, MD	0.0023	mm/mm	ASTM D 955
Mold Shrinkage, TD	0.0029	mm/mm	ASTM D 955

Mechanical properties	Value	Unit	Test Standard
ISO Data			
Tensile Modulus	14000	MPa	ISO 527
Stress at break	130	MPa	ISO 527
Strain at break	2.2	%	ISO 527
Flexural modulus, 23°C	13300	MPa	ISO 178
Flexural strength	180	MPa	ISO 178
Charpy impact strength, +23°C	22	kJ/m ²	ISO 179/1eU
Charpy notched impact strength, +23°C	7	kJ/m ²	ISO 179/1eA
Izod impact strength, +23°C	20	kJ/m ²	ISO 180/1U
Izod notched impact strength, +23°C	5.6	kJ/m ²	ISO 180/1A
ASTM Data			
Tensile Modulus	14500	MPa	ASTM D 638
Tensile Strength at Break	130	MPa	ASTM D 638
Elongation at Break	2.2	%	ASTM D 638
Flexural Modulus	13500	MPa	ASTM D 790
Flexural Strength	195	MPa	ASTM D 790
Izod Impact notched, 1/8 in	55	J/m	ASTM D 256
Izod Impact unnotched, 1/8 in	315	J/m	ASTM D 256

Thermal properties	Value	Unit	Test Standard
ISO Data			
Melting temperature, 10°C/min	335	°C	ISO 11357-1/-3
Temp. of deflection under load, 1.80 MPa	255	°C	ISO 75-1/-2
Temp. of deflection under load, 0.45 MPa	280	°C	ISO 75-1/-2
Vicat softening temperature, A	260	°C	ISO 306
Vicat softening temperature, B	200	°C	ISO 306
Coeff. of linear therm. expansion, parallel	11	E-6/K	ISO 11359-1/-2
Coeff. of linear therm. expansion, normal	60	E-6/K	ISO 11359-1/-2
Burning behav. at thickness h	V-0	class	IEC 60695-11-10
Thickness tested	0.8	mm	-
Yellow Card available	yes	-	-
ASTM Data			
Coefficient of Thermal Expansion, MD	8	E-6/K	ASTM D 696
Coefficient of Thermal Expansion, TD	50	E-6/K	ASTM D 696
DTUL @ 66 psi	280	°C	ASTM D 648
DTUL @ 264 psi	250	°C	ASTM D 648
Vicat Temperature	200	°C	ASTM D 1525

Other properties	Value	Unit	Test Standard
Density	1760	kg/m ³	ASTM D 792

Processing Recommendation Injection Molding	Value	Unit	Test Standard
Pre-drying - Temperature	120 - 150	°C	-
Pre-drying - Time	4 - 6	h	-
Melt temperature	330 - 340	°C	-

Mold temperature	90 - 120	°C	-
Zone 1	280 - 300	°C	-
Zone 2	330 - 340	°C	-
Zone 3	330 - 340	°C	-
Nozzle temperature	325 - 335	°C	-
Screw speed	80 - 100	rpm	-
Injection speed	50 - 150	mm/s	-
Back pressure	0.15 - 0.3	MPa	-

Characteristics**Processing**

Injection Molding

Special Characteristics

Flame retardant, Heat stabilized or stable to heat

Features

Low Warpage

Chemical Resistance

General Chemical Resistance

Applications

Automotive, IT / Business Machine, Electrical and Electronical

Regional Availability

North America, Europe, Asia Pacific, South and Central America