LNP™ THERMOCOMP™ Compound 8K008V

LCP-MX | Saudi Basic Industries Corporation (SABIC)

Product Texts

LNP THERMOCOMP 8K008V is a Liquid Crystalline Polymer (LCP) based compound for Laser Direct Structuring application. Added features of this material are: High heat resistance for SMT processing. Smooth surface, low warpage and stable dielectric performance.

UL Yellow Card E207780-104399815

Processing/Physical Characteristics	Value	Unit	Test Standard
ASTM Data			
Mold Shrinkage, MD	**0.0021**	mm/mm	ASTM D 955
Mold Shrinkage, TD	**0.003**	mm/mm	ASTM D 955

Mechanical properties	Value	Unit	Test Standard
ISO Data			
Tensile Modulus	**9500**	MPa	ISO 527
Stress at break	**100**	MPa	ISO 527
Strain at break	**2.5**	%	ISO 527
Flexural modulus, 23°C	**9500**	MPa	ISO 178
Flexural strength	**130**	MPa	ISO 178
Charpy impact strength, +23°C	**21**	kJ/m²	ISO 179/1eU
Charpy notched impact strength, +23°C	**5**	kJ/m²	ISO 179/1eA
Izod impact strength, +23°C	**20**	kJ/m²	ISO 180/1U
Izod notched impact strength, +23°C	**6**	kJ/m²	ISO 180/1A
ASTM Data			
Tensile Modulus	**9800**	MPa	ASTM D 638
Tensile Strength at Break	**105**	MPa	ASTM D 638
Elongation at Break	**2.5**	%	ASTM D 638
Flexural Modulus	**9500**	MPa	ASTM D 790
Flexural Strength	**135**	MPa	ASTM D 790
Izod Impact notched, 1/8 in	**45**	J/m	ASTM D 256
Izod Impact unnotched, 1/8 in	**450**	J/m	ASTM D 256

Thermal properties	Value	Unit	Test Standard
ISO Data			
Temp. of deflection under load, 1.80 MPa	**225**	°C	ISO 75-1/-2
Temp. of deflection under load, 0.45 MPa	**260**	°C	ISO 75-1/-2
Vicat softening temperature, A	**250**	°C	ISO 306
Vicat softening temperature, B	**180**	°C	ISO 306
Coeff. of linear therm. expansion, parallel	**12**	E-6/K	ISO 11359-1/-2
Coeff. of linear therm. expansion, normal	**50**	E-6/K	ISO 11359-1/-2
Burning behav. at thickness h	**V-0**	class	IEC 60695-11-10
Thickness tested	**3.0**	mm	-
Yellow Card available	**yes**	-	-
ASTM Data			
Coefficient of Thermal Expansion, MD	**11**	E-6/K	ASTM D 696
Coefficient of Thermal Expansion, TD	**45**	E-6/K	ASTM D 696
DTUL @ 66 psi	**260**	°C	ASTM D 648
DTUL @ 264 psi	**225**	°C	ASTM D 648
Vicat Temperature	**190**	°C	ASTM D 1525

Other properties	Value	Unit	Test Standard
Density	**1800**	kg/m³	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

Chemical Resistance
General Chemical Resistance

Special Characteristics
Heat stabilized or stable to heat

Applications
Automotive, IT / Business Machine, Electrical and Electronical

Features
Low Warpage

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