LNP™ THERMOCOMP™ COMPOUND LC008E

LC-1008 EM
REGION AMERICAS

DESCRIPTION

LNP THERMOCOMP LC008E compound is based on Polyetheretherketone (PEEK) resin containing 40% carbon fiber. Added features of this grade include: Easy Molding, Electrically Conductive.

GENERAL INFORMATION	
Features	Electrically Conductive, Good Processability, Carbon fiber filled, High stiffness/Strength, High temperature resistance, No PFAS intentionally added
Fillers	Carbon Fiber
Polymer Types	Polyetheretherketone (PEEK)
Processing Techniques	Injection Molding

INDUSTRY	SUB INDUSTRY
Electrical and Electronics	Electronic Components, Mobile Phone - Computer - Tablets
Industrial	Electrical, Material Handling

TYPICAL PROPERTY VALUES

Revision 20231109

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL [1]			
Tensile Stress, break	240	MPa	ASTM D638
Tensile Strain, break	1.3	%	ASTM D638
Tensile Modulus, 5 mm/min	33090	MPa	ASTM D638
Flexural Stress	365	MPa	ASTM D790
Flexural Modulus	26880	MPa	ASTM D790
Tensile Stress, break	242	MPa	ISO 527
Tensile Strain, break	1.3	%	ISO 527
Tensile Modulus, 1 mm/min	30520	MPa	ISO 527
Flexural Stress	352	MPa	ISO 178
Flexural Modulus	27500	MPa	ISO 178
IMPACT [1]			
Izod Impact, unnotched, 23°C	704	J/m	ASTM D4812
Izod Impact, notched, 23°C	58	J/m	ASTM D256
Instrumented Dart Impact Energy @ peak, 23°C	8	J	ASTM D3763
Multiaxial Impact	3	J	ISO 6603
Izod Impact, unnotched 80*10*4 +23°C	40	kJ/m²	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	5	kJ/m²	ISO 180/1A
THERMAL [1]			
HDT, 0.45 MPa, 3.2 mm, unannealed	338	°C	ASTM D648
HDT, 1.82 MPa, 3.2mm, unannealed	322	°C	ASTM D648

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
CTE, -40°C to 40°C, flow	7.20E-06	1/°C	ASTM E831
CTE, -40°C to 40°C, xflow	2.70E-05	1/°C	ASTM E831
CTE, -40°C to 40°C, flow	7.0E-06	1/°C	ISO 11359-2
CTE, -40°C to 40°C, xflow	2.70E-05	1/°C	ISO 11359-2
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	338	°C	ISO 75/Bf
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	326	°C	ISO 75/Af
PHYSICAL (1)			
Density	1.47	g/cm³	ASTM D792
Mold Shrinkage, flow, 24 hrs (2)	0.1 – 0.3	%	ASTM D955
Mold Shrinkage, xflow, 24 hrs (2)	0.6 – 0.8	%	ASTM D955
Mold Shrinkage, flow, 24 hrs (2)	0.05	%	ISO 294
Mold Shrinkage, xflow, 24 hrs (2)	0.73	%	ISO 294
Density	1.47	g/cm³	ISO 1183
INJECTION MOLDING (3)			
Drying Temperature	150	°C	
Drying Time	4 – 6	Hrs	
Front - Zone 3 Temperature	380 – 400	°C	
Middle - Zone 2 Temperature	380 – 400	°C	
Rear - Zone 1 Temperature	370 – 380	°C	
Mold Temperature	175 – 190	°C	
Back Pressure	0.3 – 0.7	MPa	
Screw Speed	60 – 100	rpm	

(1) The information stated on Technical Datasheets should be used as indicative only for material selection purposes and not be utilized as specification or used for part or tool design.

(2) Measurements made from laboratory test coupon. Actual shrinkage may vary outside of range due to differences in processing conditions, equipment, part geometry and tool design. It is recommended that mold shrinkage studies be performed with surrogate or legacy tooling prior to cutting tools for new molded article.

(3) Injection Molding parameters are only mentioned as general guidelines. These may not apply or may need adjustment in specific situations such as low shot sizes, large part molding, thin wall molding and gas-assist molding.

DISCLAIMER