LNP™ THERMOCOMP™ COMPOUND LF004E

LF-1004 EM
REGION ASIA

DESCRIPTION

LNP THERMOCOMP LF004E compound is based on Polyetheretherketone (PEEK) resin containing 20% glass fiber. Added features of this grade include: Easy Molding.

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

INDUSTRY	SUB INDUSTRY
Consumer	Commercial Appliance
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, yield	126	MPa	ASTM D638
Tensile Stress, break	126	MPa	ASTM D638
Tensile Strain, yield	2.2	%	ASTM D638
Tensile Strain, break	2.2	%	ASTM D638
Tensile Modulus, 50 mm/min	7580	MPa	ASTM D638
Flexural Stress	213	MPa	ASTM D790
Flexural modulus	6890	MPa	ASTM D790
Tensile Stress, yield	114	MPa	ISO 527
Tensile Stress, break	114	MPa	ISO 527
Tensile Strain, yield	1.8	%	ISO 527
Tensile Strain, break	1.8	%	ISO 527
Tensile Modulus, 1 mm/min	7630	MPa	ISO 527
Flexural Stress	207	MPa	ISO 178
Flexural Modulus	7000	MPa	ISO 178
IMPACT [1]			
Izod Impact, unnotched, 23°C	505	J/m	ASTM D4812
Izod Impact, notched, 23°C	42	J/m	ASTM D256
Instrumented Dart Impact Energy @ peak, 23°C	8	J	ASTM D3763
Multiaxial Impact	1	J	ISO 6603
Izod Impact, unnotched 80*10*4 +23°C	30	kJ/m²	ISO 180/1U

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
Izod Impact, notched 80*10*4 +23°C	4	kJ/m²	ISO 180/1A
THERMAL [1]			
HDT, 0.45 MPa, 3.2 mm, unannealed	335	°C	ASTM D648
HDT, 1.82 MPa, 3.2mm, unannealed	286	°C	ASTM D648
CTE, -40°C to 40°C, flow	3.42E-05	1/°C	ASTM E831
CTE, -40°C to 40°C, xflow	4.50E-05	1/°C	ASTM E831
CTE, -40°C to 40°C, flow	3.30E-05	1/°C	ISO 11359-2
CTE, -40°C to 40°C, xflow	4.50E-05	1/°C	ISO 11359-2
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	332	°C	ISO 75/Bf
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	261	°C	ISO 75/Af
PHYSICAL [1]			
Density	1.42	g/cm³	ASTM D792
Mold Shrinkage, flow, 24 hrs [2]	0.3 – 0.5	%	ASTM D955
Mold Shrinkage, xflow, 24 hrs [2]	0.5 – 0.7	%	ASTM D955
Mold Shrinkage, flow, 24 hrs [2]	0.44	%	ISO 294
Mold Shrinkage, xflow, 24 hrs [2]	0.58	%	ISO 294
Density	1.42	g/cm³	ISO 1183
INJECTION MOLDING [3]			
Drying Temperature	120 – 150	°C	
Drying Time	4	Hrs	
Maximum Moisture Content	0.1	%	
Melt Temperature	380 – 390	°C	
Front - Zone 3 Temperature	380 – 395	°C	
Middle - Zone 2 Temperature	365 – 375	°C	
Rear - Zone 1 Temperature	350 – 360	°C	
Mold Temperature	140 – 165	°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