LNP™ THERMOCOMP™ COMPOUND LCF62E

LCF-1008 EM
REGION EUROPE

DESCRIPTION

LNP THERMOCOMP LCF62E compound is based on Polyetheretherketone (PEEK) resin containing 10% carbon fiber and 30% glass 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
Fillers	Carbon Fiber, Glass 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, brk, Type I, 5 mm/min	203	MPa	ASTM D638
Tensile Strain, brk, Type I, 5 mm/min	0.8	%	ASTM D638
Tensile Modulus, 5 mm/min	62980	MPa	ASTM D638
Flexural Stress, brk, 1.3 mm/min, 50 mm span	296	MPa	ASTM D790
Flexural Modulus, 1.3 mm/min, 50 mm span	17340	MPa	ASTM D790
Tensile Stress, break, 5 mm/min	196	MPa	ISO 527
Tensile Strain, break, 5 mm/min	0.7	%	ISO 527
Tensile Modulus, 1 mm/min	41090	MPa	ISO 527
Flexural Stress	391	MPa	ISO 178
Flexural Modulus, 2 mm/min	36490	MPa	ISO 178
IMPACT [1]			
Izod Impact, unnotched, 23°C	711	J/m	ASTM D4812
Izod Impact, notched, 23°C	80	J/m	ASTM D256
Instrumented Dart Impact Total Energy, 23°C	17	J	ASTM D3763
Izod Impact, unnotched 80*10*4 +23°C	47	kJ/m²	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	8	kJ/m²	ISO 180/1A
THERMAL [1]			
HDT, 0.45 MPa, 3.2 mm, unannealed	290	°C	ASTM D648
HDT, 1.82 MPa, 3.2mm, unannealed	290	°C	ASTM D648
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	290	°C	ISO 75/Bf

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	290	°C	ISO 75/Af
PHYSICAL [1]			
Specific Gravity	1.57	-	ASTM D792
Density	1.57	g/cm³	ASTM D792
Moisture Absorption, (23°C/50% RH/24 hrs)	0.02	%	ASTM D570
Mold Shrinkage, flow, 24 hrs [2]	0.09 – 2	%	ASTM D955
Mold Shrinkage, xflow, 24 hrs [2]	1 – 3	%	ASTM D955
Moisture Absorption (23°C / 50% RH)	0.02	%	ISO 62
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