LNP™ THERMOCOMP™ COMPOUND LC003E

LC-1003 EM
REGION ASIA

DESCRIPTION

LNP THERMOCOMP* LC003E is a compound based on Polyetheretherketone resin containing 15% Carbon Fiber. Added features of this material include: Easy Molding, Electrically Conductive

TYPICAL PROPERTY VALUES

Revision 20181219

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL			
Tensile Stress, break	153	MPa	ASTM D 638
Tensile Strain, break	1.8	%	ASTM D 638
Tensile Modulus, 50 mm/min	11510	MPa	ASTM D 638
Flexural Stress	259	MPa	ASTM D 790
Flexural Modulus	9510	MPa	ASTM D 790
Tensile Stress, break	163	MPa	ISO 527
Tensile Strain, break	1.8	%	ISO 527
Tensile Modulus, 1 mm/min	10520	MPa	ISO 527
Flexural Stress	263	MPa	ISO 178
Flexural Modulus	9850	MPa	ISO 178
IMPACT			
Izod Impact, unnotched, 23°C	400	J/m	ASTM D 4812
Izod Impact, notched, 23°C	37	J/m	ASTM D 256
Instrumented Impact Energy @ peak, 23°C	4	J	ASTM D 3763
Multiaxial Impact	1	J	ISO 6603
Izod Impact, unnotched 80*10*4 +23°C	29	kJ/m²	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	4	kJ/m²	ISO 180/1A
THERMAL			
HDT, 1.82 MPa, 3.2mm, unannealed	270	°C	ASTM D 648
CTE, -40°C to 40°C, flow	5.2E-05	1/°C	ASTM E 831
CTE, -40°C to 40°C, xflow	5.36E-05	1/°C	ASTM E 831
CTE, -40°C to 40°C, flow	5.19E-05	1/°C	ISO 11359-2
CTE, -40°C to 40°C, xflow	5.36E-05	1/°C	ISO 11359-2
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	298	°C	ISO 75/Af
PHYSICAL			
Density	1.33	g/cm³	ASTM D 792
Moisture Absorption, 50% RH, 24 hrs	0.07	%	ASTM D 570
Mold Shrinkage, flow, 24 hrs	0.2 – 0.3	%	ASTM D 955
Mold Shrinkage, xflow, 24 hrs	0.5 – 0.6	%	ASTM D 955
Mold Shrinkage, flow, 24 hrs	0.28 – 0.31	%	ISO 294
Mold Shrinkage, xflow, 24 hrs	0.51 – 0.58	%	ISO 294
Density	1.33	g/cm³	ISO 1183
Moisture Absorption (23°C / 50% RH)	0.13	%	ISO 62

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PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
ELECTRICAL			
Surface Resistivity	1.E+03 – 1.E+07	Ohm	ASTM D 257
INJECTION MOLDING			
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	

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