



LNP™ THERMOCOMP™ Compound LC003E

Americas: COMMERCIAL

Also known as: LNP™ THERMOCOMP™ Compound LC-1003 EM

Product reorder name: LC003E

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 PROPERTIES ¹	TYPICAL VALUE	Unit	Standard
MECHANICAL			
Tensile Stress, break	1560	kgf/cm ²	ASTM D 638
Tensile Strain, break	1.8	%	ASTM D 638
Tensile Modulus, 50 mm/min	117400	kgf/cm ²	ASTM D 638
Flexural Stress	2640	kgf/cm ²	ASTM D 790
Flexural Modulus	97000	kgf/cm ²	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	40	cm-kgf/cm	ASTM D 4812
Izod Impact, notched, 23°C	3	cm-kgf/cm	ASTM D 256
Instrumented Impact Energy @ peak, 23°C	44	cm-kgf	ASTM D 3763
Multiaxial Impact	18	cm-kgf	ISO 6603
Izod Impact, unnotched 80*10*4 +23°C	29	kJ/m ²	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	4	kJ/m ²	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



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TYPICAL PROPERTIES ¹	TYPICAL VALUE	Unit	Standard
THERMAL			
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	298	°C	ISO 75/Af
PHYSICAL			
Density	1.33	g/cm ³	ASTM D 792
Moisture Absorption, 50% RH, 24 hrs	0.07	%	ASTM D 570
Mold Shrinkage, flow, 24 hrs (5)	0.2 - 0.3	%	ASTM D 955
Mold Shrinkage, xflow, 24 hrs (5)	0.5 - 0.6	%	ASTM D 955
Mold Shrinkage, flow, 24 hrs (5)	0.28 - 0.31	%	ISO 294
Mold Shrinkage, xflow, 24 hrs (5)	0.51 - 0.58	%	ISO 294
Density	1.33	g/cm ³	ISO 1183
Moisture Absorption (23°C / 50% RH)	0.13	%	ISO 62
ELECTRICAL			
Surface Resistivity	1.E+03 - 1.E+07	Ohm	ASTM D 257



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PROCESSING PARAMETERS	TYPICAL VALUE	Unit
Injection Molding		
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