



LNP™ THERMOCOMP™ Compound LF004E

Americas: COMMERCIAL

Also known as: LNP™ THERMOCOMP™ Compound LF-1004 EM

Product reorder name: LF004E

LNP THERMOCOMP LF004E is a compound based on Polyetheretherketone resin containing 20% Glass Fiber. Added features of this material include: Easy Molding.

TYPICAL PROPERTIES ¹	TYPICAL VALUE	Unit	Standard
MECHANICAL			
Tensile Stress, brk, Type I, 5 mm/min	1490	kgf/cm ²	ASTM D 638
Tensile Strain, brk, Type I, 5 mm/min	2.3	%	ASTM D 638
Tensile Modulus, 5 mm/min	89000	kgf/cm ²	ASTM D 638
Flexural Stress, brk, 1.3 mm/min, 50 mm span	2320	kgf/cm ²	ASTM D 790
Flexural Modulus, 1.3 mm/min, 50 mm span	82400	kgf/cm ²	ASTM D 790
Tensile Stress, break, 5 mm/min	124	MPa	ISO 527
Tensile Strain, break, 5 mm/min	1.7	%	ISO 527
Tensile Modulus, 1 mm/min	8620	MPa	ISO 527
Flexural Stress	222	MPa	ISO 178
Flexural Modulus, 2 mm/min	7720	MPa	ISO 178
IMPACT			
Izod Impact, unnotched, 23°C	49	cm-kgf/cm	ASTM D 4812
Izod Impact, notched, 23°C	4	cm-kgf/cm	ASTM D 256
Multiaxial Impact	15	cm-kgf	ISO 6603
Instrumented Impact Total Energy, 23°C	62	cm-kgf	ASTM D 3763
Izod Impact, unnotched 80*10*4 +23°C	30	kJ/m ²	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	4	kJ/m ²	ISO 180/1A
THERMAL			
HDT, 0.45 MPa, 3.2 mm, unannealed	337	°C	ASTM D 648
HDT, 1.82 MPa, 3.2mm, unannealed	320	°C	ASTM D 648
CTE, -30°C to 30°C, flow	2.8E-05	1/°C	ASTM D 696
CTE, -30°C to 30°C, xflow	4.5E-05	1/°C	ASTM D 696
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	335	°C	ISO 75/Bf



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THERMAL			
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	305	°C	ISO 75/Af
PHYSICAL			
Specific Gravity	1.45	-	ASTM D 792
Density	1.44	g/cm ³	ASTM D 792
Moisture Absorption, 50% RH, 24 hrs	0.09	%	ASTM D 570
Mold Shrinkage, flow, 24 hrs (5)	0.71	%	ASTM D 955
Mold Shrinkage, xflow, 24 hrs (5)	1.2	%	ASTM D 955
Moisture Absorption (23°C / 50% RH)	0.1	%	ISO 62



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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