



LNP™ THERMOCOMP™ Compound LF003

Americas: COMMERCIAL

Also known as: LNP™ THERMOCOMP™ Compound LF-1003

Product reorder name: LF003

LNP THERMOCOMP LF003 is a compound based on Polyetheretherketone resin containing 15% Glass Fiber.

TYPICAL PROPERTIES ¹	TYPICAL VALUE	Unit	Standard
MECHANICAL			
Tensile Stress, yield	1390	kgf/cm ²	ASTM D 638
Tensile Stress, break	1390	kgf/cm ²	ASTM D 638
Tensile Strain, yield	2.9	%	ASTM D 638
Tensile Strain, break	3.1	%	ASTM D 638
Tensile Modulus, 5 mm/min	759200	kgf/cm ²	ASTM D 638
Flexural Stress	2030	kgf/cm ²	ASTM D 790
Flexural Modulus	639700	kgf/cm ²	ASTM D 790
Tensile Stress, yield	125	MPa	ISO 527
Tensile Stress, break	125	MPa	ISO 527
Tensile Strain, yield	2.3	%	ISO 527
Tensile Strain, break	2.3	%	ISO 527
Tensile Modulus, 1 mm/min	6930	MPa	ISO 527
Flexural Stress	209	MPa	ISO 178
Flexural Modulus	7000	MPa	ISO 178
IMPACT			
Izod Impact, unnotched, 23°C	87	cm-kgf/cm	ASTM D 4812
Izod Impact, notched, 23°C	5	cm-kgf/cm	ASTM D 256
Instrumented Impact Energy @ peak, 23°C	148	cm-kgf	ASTM D 3763
Multiaxial Impact	31	cm-kgf	ISO 6603
Izod Impact, unnotched 80*10*4 +23°C	54	kJ/m ²	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	6	kJ/m ²	ISO 180/1A
THERMAL			
HDT, 0.45 MPa, 3.2 mm, unannealed	328	°C	ASTM D 648



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THERMAL			
HDT, 1.82 MPa, 3.2mm, unannealed	258	°C	ASTM D 648
CTE, -40°C to 40°C, flow	4.86E-05	1/°C	ASTM E 831
CTE, -40°C to 40°C, xflow	3.06E-05	1/°C	ASTM E 831
CTE, -40°C to 40°C, flow	4.8E-05	1/°C	ISO 11359-2
CTE, -40°C to 40°C, xflow	3.1E-05	1/°C	ISO 11359-2
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	325	°C	ISO 75/Bf
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	244	°C	ISO 75/Af
PHYSICAL			
Density	1.39	g/cm ³	ASTM D 792
Mold Shrinkage, flow, 24 hrs (5)	0.8	%	ASTM D 955
Mold Shrinkage, xflow, 24 hrs (5)	1	%	ASTM D 955
Mold Shrinkage, flow, 24 hrs (5)	0.79	%	ISO 294
Mold Shrinkage, xflow, 24 hrs (5)	1	%	ISO 294
Density	1.39	g/cm ³	ISO 1183



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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