



LNP™ THERMOCOMP™ Compound GF003

Americas: COMMERCIAL

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

Product reorder name: GF003

LNP THERMOCOMP™ GF003 is a compound based on Polysulfone resin containing 15% Glass Fiber.

TYPICAL PROPERTIES ¹	TYPICAL VALUE	Unit	Standard
MECHANICAL			
Tensile Stress, brk, Type I, 5 mm/min	870	kgf/cm ²	ASTM D 638
Tensile Strain, yld, Type I, 5 mm/min	2.9	%	ASTM D 638
Tensile Strain, brk, Type I, 5 mm/min	3.1	%	ASTM D 638
Tensile Modulus, 50 mm/min	55900	kgf/cm ²	ASTM D 638
Flexural Stress, brk, 1.3 mm/min, 50 mm span	1480	kgf/cm ²	ASTM D 790
Flexural Modulus, 1.3 mm/min, 50 mm span	48100	kgf/cm ²	ASTM D 790
Tensile Stress, break, 5 mm/min	86	MPa	ISO 527
Tensile Strain, yield, 5 mm/min	2.8	%	ISO 527
Tensile Strain, break, 5 mm/min	3.1	%	ISO 527
Tensile Modulus, 1 mm/min	5420	MPa	ISO 527
Flexural Modulus, 2 mm/min	4710	MPa	ISO 178
IMPACT			
Izod Impact, unnotched, 23°C	56	cm-kgf/cm	ASTM D 4812
Izod Impact, notched, 23°C	4	cm-kgf/cm	ASTM D 256
Multiaxial Impact	39	cm-kgf	ISO 6603
Instrumented Impact Total Energy, 23°C	148	cm-kgf	ASTM D 3763
Izod Impact, unnotched 80*10*4 +23°C	37	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	184	°C	ASTM D 648
HDT, 1.82 MPa, 3.2mm, unannealed	178	°C	ASTM D 648
CTE, -30°C to 30°C, flow	3.18E+00	1/°C	ASTM D 696
CTE, -30°C to 30°C, xflow	5.5E+00	1/°C	ASTM D 696



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THERMAL			
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	185	°C	ISO 75/Bf
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	179	°C	ISO 75/Af
PHYSICAL			
Specific Gravity	1.36	-	ASTM D 792
Density	1.35	g/cm ³	ASTM D 792
Moisture Absorption, 50% RH, 24 hrs	0.21	%	ASTM D 570
Mold Shrinkage, flow, 24 hrs (5)	0.4 - 0.6	%	ASTM D 955
Mold Shrinkage, xflow, 24 hrs (5)	0.5 - 0.7	%	ASTM D 955
Density	1.35	g/cm ³	ISO 1183
Moisture Absorption (23°C / 50% RH)	0.34	%	ISO 62



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PROCESSING PARAMETERS	TYPICAL VALUE	Unit
Injection Molding		
Drying Temperature	120 - 150	°C
Drying Time	4	hrs
Maximum Moisture Content	0.05	%
Melt Temperature	360 - 370	°C
Front - Zone 3 Temperature	350 - 360	°C
Middle - Zone 2 Temperature	340 - 350	°C
Rear - Zone 1 Temperature	325 - 340	°C
Mold Temperature	150	°C
Back Pressure	0.2 - 0.3	MPa
Screw Speed	30 - 60	rpm