



LNP™ LUBRICOMP™ Compound FL004

Americas: COMMERCIAL

Also known as: LNP™ LUBRICOMP™ Compound FL-4040

Product reorder name: FL004

LNP™ LUBRICOMP™ FL004 is a compound based on Polyethylene resin containing 20% PTFE. Added feature of this material is: Wear Resistant.

TYPICAL PROPERTIES ¹	TYPICAL VALUE	Unit	Standard
MECHANICAL			
Tensile Stress, break	260	kgf/cm ²	ASTM D 638
Tensile Stress, yld, Type I, 5 mm/min	230	kgf/cm ²	ASTM D 638
Tensile Stress, brk, Type I, 5 mm/min	120	kgf/cm ²	ASTM D 638
Tensile Strain, break	42	%	ASTM D 638
Tensile Strain, yld, Type I, 5 mm/min	8.2	%	ASTM D 638
Tensile Strain, brk, Type I, 5 mm/min	148	%	ASTM D 638
Tensile Modulus, 50 mm/min	12700	kgf/cm ²	ASTM D 638
Flexural Stress	210	kgf/cm ²	ASTM D 790
Flexural Modulus	10200	kgf/cm ²	ASTM D 790
Flexural Modulus, 1.3 mm/min, 50 mm span	9500	kgf/cm ²	ASTM D 790
Tensile Stress, yield, 5 mm/min	23	MPa	ISO 527
Tensile Stress, break, 5 mm/min	6	MPa	ISO 527
Tensile Strain, yield, 5 mm/min	7.9	%	ISO 527
Tensile Strain, break, 5 mm/min	78	%	ISO 527
Tensile Modulus, 1 mm/min	1000	MPa	ISO 527
Flexural Stress	19	MPa	ISO 178
Flexural Modulus, 2 mm/min	930	MPa	ISO 178
IMPACT			
Izod Impact, unnotched, 23°C	105	cm-kgf/cm	ASTM D 4812
Izod Impact, notched, 23°C	3	cm-kgf/cm	ASTM D 256
Multiaxial Impact	73	cm-kgf	ISO 6603
Instrumented Impact Total Energy, 23°C	136	cm-kgf	ASTM D 3763



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TYPICAL PROPERTIES ¹	TYPICAL VALUE	Unit	Standard
IMPACT			
Izod Impact, unnotched 80*10*4 +23°C	100	kJ/m ²	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	3	kJ/m ²	ISO 180/1A
THERMAL			
HDT, 0.45 MPa, 3.2 mm, unannealed	74	°C	ASTM D 648
HDT, 1.82 MPa, 3.2mm, unannealed	53	°C	ASTM D 648
CTE, -30°C to 30°C, flow	1.37E-04	1/°C	ASTM D 696
CTE, -30°C to 30°C, xflow	1.21E-04	1/°C	ASTM D 696
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	82	°C	ISO 75/Bf
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	59	°C	ISO 75/Af
PHYSICAL			
Specific Gravity	1.08	-	ASTM D 792
Density	1.08	g/cm ³	ASTM D 792
Moisture Absorption, 50% RH, 24 hrs	0	%	ASTM D 570
Mold Shrinkage, flow, 24 hrs (5)	3 - 5	%	ASTM D 955
Mold Shrinkage, xflow, 24 hrs (5)	1 - 3	%	ASTM D 955
Wear Factor Washer	9	10 ⁻¹⁰ in ⁵ -min/ft-lb-hr	ASTM D 3702 Modified
Wear Factor Ring	-1	10 ⁻¹⁰ in ⁵ -min/ft-lb-hr	ASTM D 3702 Modified
Dynamic COF	0.17	-	ASTM D 3702 Modified
Static COF	0.11	-	ASTM D 3702 Modified
Moisture Absorption (23°C / 50% RH)	0	%	ISO 62



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PROCESSING PARAMETERS	TYPICAL VALUE	Unit
Injection Molding		
Drying Temperature	80	°C
Drying Time	2 - 4	hrs
Melt Temperature	230	°C
Front - Zone 3 Temperature	220 - 230	°C
Middle - Zone 2 Temperature	210 - 220	°C
Rear - Zone 1 Temperature	195 - 205	°C
Mold Temperature	40 - 55	°C
Back Pressure	0.2 - 0.3	MPa
Screw Speed	30 - 60	rpm