



LNP™ LUBRICOMP™ Compound ML004LS

Americas: COMMERCIAL

Also known as: LNP™ LUBRICOMP™ Compound ML-4040 HS LE

Product reorder name: ML004LS

LNP LUBRICOMP ML004LS is a compound based on Polypropylene resin containing 20% PTFE. Added features of this material include: Wear Resistant, Heat Stabilized, Low Extractible.

TYPICAL PROPERTIES ¹	TYPICAL VALUE	Unit	Standard
MECHANICAL			
Tensile Stress, yld, Type I, 5 mm/min	340	kgf/cm ²	ASTM D 638
Tensile Stress, brk, Type I, 5 mm/min	170	kgf/cm ²	ASTM D 638
Tensile Strain, yld, Type I, 5 mm/min	6	%	ASTM D 638
Tensile Strain, brk, Type I, 5 mm/min	37.9	%	ASTM D 638
Tensile Modulus, 50 mm/min	19500	kgf/cm ²	ASTM D 638
Flexural Modulus, 1.3 mm/min, 50 mm span	17500	kgf/cm ²	ASTM D 790
Tensile Stress, yield, 5 mm/min	32	MPa	ISO 527
Tensile Stress, break, 5 mm/min	22	MPa	ISO 527
Tensile Strain, yield, 5 mm/min	5.7	%	ISO 527
Tensile Strain, break, 5 mm/min	28	%	ISO 527
Tensile Modulus, 1 mm/min	1670	MPa	ISO 527
Flexural Stress	37	MPa	ISO 178
Flexural Modulus, 2 mm/min	1480	MPa	ISO 178
IMPACT			
Izod Impact, unnotched, 23°C	57	cm-kgf/cm	ASTM D 4812
Izod Impact, notched, 23°C	2	cm-kgf/cm	ASTM D 256
Multiaxial Impact	21	cm-kgf	ISO 6603
Instrumented Impact Total Energy, 23°C	38	cm-kgf	ASTM D 3763
Izod Impact, unnotched 80*10*4 +23°C	35	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	116	°C	ASTM D 648
HDT, 1.82 MPa, 3.2mm, unannealed	60	°C	ASTM D 648





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THERMAL			
CTE, -30°C to 30°C, flow	1.51E-04	1/°C	ASTM D 696
CTE, -30°C to 30°C, xflow	1.41E-04	1/°C	ASTM D 696
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	93	°C	ISO 75/Bf
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	56	°C	ISO 75/Af
PHYSICAL			
Specific Gravity	1.03	-	ASTM D 792
Density	1.03	g/cm ³	ASTM D 792
Moisture Absorption, 50% RH, 24 hrs	0.02	%	ASTM D 570
Mold Shrinkage, flow, 24 hrs (5)	1 - 3	%	ASTM D 955
Mold Shrinkage, xflow, 24 hrs (5)	3 - 3	%	ASTM D 955
Wear Factor Washer	7	10 ⁻¹⁰ in ⁵ -min/ft-lb-hr	ASTM D 3702 Modified: Manual
Wear Factor Ring	0	10 ⁻¹⁰ in ⁵ -min/ft-lb-hr	ASTM D 3702 Modified: Manual
Dynamic COF	0.42	-	ASTM D 3702 Modified: Manual
Static COF	0.28	-	ASTM D 3702 Modified: Manual
Moisture Absorption (23°C / 50% RH)	0.02	%	ISO 62





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PROCESSING PARAMETERS	TYPICAL VALUE	Unit
Injection Molding		
Drying Temperature	80	°C
Drying Time	4	hrs
Melt Temperature	225 - 250	°C
Front - Zone 3 Temperature	240 - 250	°C
Middle - Zone 2 Temperature	215 - 225	°C
Rear - Zone 1 Temperature	195 - 205	°C
Mold Temperature	30 - 50	°C
Back Pressure	0.2 - 0.3	MPa
Screw Speed	30 - 60	rpm

