



LNP™ LUBRICOMP™ Compound ML004S

Americas: COMMERCIAL

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

Product reorder name: ML004S

LNP LUBRICOMP ML004S is a compound based on Polypropylene resin containing 20% PTFE. Added features of this material include: Wear Resistant, Heat Stabilized.

TYPICAL PROPERTIES ¹	TYPICAL VALUE	Unit	Standard
MECHANICAL			
Tensile Stress, yld, Type I, 5 mm/min	330	kgf/cm ²	ASTM D 638
Tensile Stress, brk, Type I, 5 mm/min	300	kgf/cm ²	ASTM D 638
Tensile Strain, yld, Type I, 5 mm/min	5.6	%	ASTM D 638
Tensile Strain, brk, Type I, 5 mm/min	15	%	ASTM D 638
Tensile Modulus, 5 mm/min	20600	kgf/cm ²	ASTM D 638
Flexural Stress, yld, 1.3 mm/min, 50 mm span	470	kgf/cm ²	ASTM D 790
Flexural Modulus, 1.3 mm/min, 50 mm span	17900	kgf/cm ²	ASTM D 790
Tensile Stress, yield, 5 mm/min	31	MPa	ISO 527
Tensile Stress, break, 5 mm/min	29	MPa	ISO 527
Tensile Strain, yield, 5 mm/min	5	%	ISO 527
Tensile Strain, break, 5 mm/min	13	%	ISO 527
Tensile Modulus, 1 mm/min	1660	MPa	ISO 527
Flexural Stress	44	MPa	ISO 178
Flexural Modulus, 2 mm/min	1690	MPa	ISO 178
IMPACT			
Izod Impact, unnotched, 23°C	35	cm-kgf/cm	ASTM D 4812
Izod Impact, notched, 23°C	4	cm-kgf/cm	ASTM D 256
Multiaxial Impact	14	cm-kgf	ISO 6603
Instrumented Impact Total Energy, 23°C	61	cm-kgf	ASTM D 3763
Izod Impact, unnotched 80*10*4 +23°C	22	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	119	°C	ASTM D 648





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TYPICAL PROPERTIES ¹	TYPICAL VALUE	Unit	Standard
THERMAL			
HDT, 1.82 MPa, 3.2mm, unannealed	65	°C	ASTM D 648
CTE, -30°C to 30°C, flow	9.1E-05	1/°C	ASTM D 696
CTE, -30°C to 30°C, xflow	3.98E-03	1/°C	ASTM D 696
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	105	°C	ISO 75/Bf
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	60	°C	ISO 75/Af
PHYSICAL			
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)	2 - 4	%	ASTM D 955
Mold Shrinkage, xflow, 24 hrs (5)	2 - 4	%	ASTM D 955
Wear Factor Washer	172	10 ⁻¹⁰ in ⁵ -min/ft-lb-hr	ASTM D 3702 Modified: Manual
Wear Factor Ring	6	10 ⁻¹⁰ in ⁵ -min/ft-lb-hr	ASTM D 3702 Modified: Manual
Dynamic COF	0.76	-	ASTM D 3702 Modified: Manual
Static COF	0.62	-	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

