+135-3858-6433 (GuangDong)
+188-1699-6168 (ShangHai)
+852-6957-5415 (HongKong)

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 matLNP LUBRICOMP ML004LS is a compound based on Polypropylene resin containing 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/cm²	ASTM D 638
Tensile Stress, brk, Type I, 5 mm/min	170	kgf/cm²	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/cm²	ASTM D 638
Flexural Modulus, 1.3 mm/min, 50 mm span	17500	kgf/cm²	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/m²	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	3	kJ/m²	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

(1) Typical values only. Variations within normal tolerances are possible for various colors. All values are measured after at least 48 hours storage at 23°C/50% relative humidity. All properties, except the melt volume and melt flow rates, are measured on injection molded samples. All samples tested under ISO test standards are prepared according to ISO 294.

(2) Only typical data for selection purposes. Not to be used for part or tool design.
(3) This rating is not intended to reflect hazards presented by this or any other material under actual fire conditions.
(4) Internal measurements according to UL standards.
(5) Measurements made from laboratory test coupon. Actual shrinkage may vary outside of range due to differences in processing conditions, equipment, part geometry and tool design. It is recommended that mold shrinkage studies be performed with surrogate or legacy tooling prior to cutting tools for new molded article.
(6) Needs hard coat to consistently pass 60 sec Vertical Burn.

+135-3858-6433 (GuangDong)
+188-1699-6168 (ShangHai)
+852-6957-5415 (HongKong)

LNP™ LUBRICOMP™ Compound ML004LS

Americas: COMMERCIAL

TYPICAL PROPERTIES[1]	TYPICAL VALUE	Unit	Standard
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/cm³	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

(1) Typical values only. Variations within normal tolerances are possible for various colors. All values are measured after at least 48 hours storage at 23°C/50% relative humidity. All properties, except the melt volume and melt flow rates, are measured on injection molded samples. All samples tested under ISO test standards are prepared according to ISO 294.

(2) Only typical data for selection purposes. Not to be used for part or tool design.
(3) This rating is not intended to reflect hazards presented by this or any other material under actual fire conditions.
(4) Internal measurements according to UL standards.
(5) Measurements made from laboratory test coupon. Actual shrinkage may vary outside of range due to differences in processing conditions, equipment, part geometry and tool design. It is recommended that mold shrinkage studies be performed with surrogate or legacy tooling prior to cutting tools for new molded article.
(6) Needs hard coat to consistently pass 60 sec Vertical Burn.

+135-3858-6433 (GuangDong)
+188-1699-6168 (ShangHai)
+852-6957-5415 (HongKong)

LNP™ LUBRICOMP™ Compound ML004LS

Americas: COMMERCIAL

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

(1) Typical values only. Variations within normal tolerances are possible for various colors. All values are measured after at least 48 hours storage at 23°C/50% relative humidity. All properties, except the melt volume and melt flow rates, are measured on injection molded samples. All samples tested under ISO test standards are prepared according to ISO 294.

(2) Only typical data for selection purposes. Not to be used for part or tool design.
(3) This rating is not intended to reflect hazards presented by this or any other material under actual fire conditions.
(4) Internal measurements according to UL standards.
(5) Measurements made from laboratory test coupon. Actual shrinkage may vary outside of range due to differences in processing conditions, equipment, part geometry and tool design. It is recommended that mold shrinkage studies be performed with surrogate or legacy tooling prior to cutting tools for new molded article.
(6) Needs hard coat to consistently pass 60 sec Vertical Burn.