LNP™ LUBRICOMP™ Compound LL004

Americas: COMMERCIAL

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

Product reorder name: LL004

LNP LUBRICOMP™ LL004 is a compound based on Polyetheretherketone resin containing 20% PTFE. Added feature of this material is: Wear Resistant.

TYPICAL PROPERTIES[1]	TYPICAL VALUE	Unit	Standard
MECHANICAL			
Tensile Stress, yield	760	kgf/cm²	ASTM D 638
Tensile Stress, break	710	kgf/cm²	ASTM D 638
Tensile Strain, yield	5.8	%	ASTM D 638
Tensile Strain, break	23.3	%	ASTM D 638
Tensile Modulus, 50 mm/min	29500	kgf/cm²	ASTM D 638
Flexural Stress	1200	kgf/cm²	ASTM D 790
Flexural Modulus	30200	kgf/cm²	ASTM D 790
Tensile Stress, yield	73	MPa	ISO 527
Tensile Stress, break	69	MPa	ISO 527
Tensile Strain, yield	5	%	ISO 527
Tensile Strain, break	11.8	%	ISO 527
Tensile Modulus, 1 mm/min	3060	MPa	ISO 527
Flexural Stress	118	MPa	ISO 178
Flexural Modulus	3320	MPa	ISO 178
IMPACT			
Izod Impact, unnotched, 23°C	158	cm-kgf/cm	ASTM D 4812
Izod Impact, notched, 23°C	9	cm-kgf/cm	ASTM D 256
Instrumented Impact Energy @ peak, 23°C	28	cm-kgf	ASTM D 3763
Multiaxial Impact	13	cm-kgf	ISO 6603
Izod Impact, unnotched 80*10*4 +23°C	91	kJ/m²	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	8	kJ/m²	ISO 180/1A
PHYSICAL			
Density	1.37	g/cm³	ASTM D 792

(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.

Source GMD, last updated:

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TYPICAL PROPERTIES[1]	TYPICAL VALUE	Unit	Standard
PHYSICAL			
Moisture Absorption, 50% RH, 24 hrs	0.06	%	ASTM D 570
Mold Shrinkage, flow, 24 hrs (5)	1.3	%	ASTM D 955
Mold Shrinkage, xflow, 24 hrs (5)	1.9	%	ASTM D 955
Mold Shrinkage, flow, 24 hrs (5)	1.3	%	ISO 294
Mold Shrinkage, xflow, 24 hrs (5)	1.85	%	ISO 294
Wear Factor Washer	128	10^-10 in^5-min/ft-lb-hr	ASTM D 3702 Modified
Dynamic COF	0.52	-	ASTM D 3702 Modified
Static COF	0.43	-	ASTM D 3702 Modified
Density	1.37	g/cm³	ISO 1183
Moisture Absorption (23°C / 50% RH)	0.12	%	ISO 62

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PROCESSING PARAMETERS	TYPICAL VALUE	Unit
Injection Molding		
Drying Temperature	150	°C
Drying Time	4 - 6	hrs
Front - Zone 3 Temperature	380 - 400	°C
Middle - Zone 2 Temperature	380 - 400	°C
Rear - Zone 1 Temperature	370 - 380	°C
Mold Temperature	175 - 190	°C
Back Pressure	0.3 - 0.7	MPa
Screw Speed	60 - 100	rpm

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