LNP™ LUBRICOMP™ Compound GFL36L

Americas: COMMERCIAL

Also known as: LNP™ LUBRICOMP™ Compound GFL-4036 LE

Product reorder name: GFL36L

LNP™ LUBRICOMP™ GFL36L is a compound based on Polysulfone resin containing 30% Glass Fiber, 15% PTFE. Added features of this material include: Low Extractable, Wear Resistant.

TYPICAL PROPERTIES[1]	TYPICAL VALUE	Unit	Standard
MECHANICAL			
Tensile Stress, yield	900	kgf/cm²	ASTM D 638
Tensile Stress, break	900	kgf/cm²	ASTM D 638
Tensile Strain, yield	1.3	%	ASTM D 638
Tensile Strain, break	1.3	%	ASTM D 638
Tensile Modulus, 50 mm/min	105400	kgf/cm²	ASTM D 638
Flexural Stress	1120	kgf/cm²	ASTM D 790
Flexural Modulus	91300	kgf/cm²	ASTM D 790
Tensile Stress, yield	87	MPa	ISO 527
Tensile Stress, break	87	MPa	ISO 527
Tensile Strain, yield	1.3	%	ISO 527
Tensile Strain, break	1.2	%	ISO 527
Tensile Modulus, 1 mm/min	9330	MPa	ISO 527
Flexural Stress	121	MPa	ISO 178
Flexural Modulus	9000	MPa	ISO 178
IMPACT			
Izod Impact, unnotched, 23°C	34	cm-kgf/cm	ASTM D 4812
Izod Impact, notched, 23°C	7	cm-kgf/cm	ASTM D 256
Instrumented Impact Energy @ peak, 23°C	146	cm-kgf	ASTM D 3763
Multiaxial Impact	37	cm-kgf	ISO 6603
Izod Impact, unnotched 80*10*4 +23°C	23	kJ/m²	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	8	kJ/m²	ISO 180/1A
THERMAL			
HDT, 0.45 MPa, 3.2 mm, unannealed	185	°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.

Source GMD, last updated:

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TYPICAL PROPERTIES[1]	TYPICAL VALUE	Unit	Standard
THERMAL			
HDT, 1.82 MPa, 3.2mm, unannealed	180	°C	ASTM D 648
CTE, -40°C to 40°C, flow	3.06E-05	1/°C	ASTM E 831
CTE, -40°C to 40°C, xflow	2.52E-05	1/°C	ASTM E 831
CTE, -40°C to 40°C, flow	3.E-05	1/°C	ISO 11359-2
CTE, -40°C to 40°C, xflow	2.4E-05	1/°C	ISO 11359-2
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	186	°C	ISO 75/Bf
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	181	°C	ISO 75/Af
PHYSICAL			
Density	1.62	g/cm³	ASTM D 792
Moisture Absorption, 50% RH, 24 hrs	0.1	%	ASTM D 570
Mold Shrinkage, flow, 24 hrs (5)	0.2 - 0.4	%	ASTM D 955
Mold Shrinkage, xflow, 24 hrs (5)	0.4 - 0.6	%	ASTM D 955
Mold Shrinkage, flow, 24 hrs (5)	0.26	%	ISO 294
Mold Shrinkage, xflow, 24 hrs (5)	0.51	%	ISO 294
Wear Factor Washer	44	10^-10 in^5-min/ft-lb-hr	ASTM D 3702 Modified
Dynamic COF	0.42	-	ASTM D 3702 Modified
Static COF	0.62	-	ASTM D 3702 Modified
Density	1.62	g/cm³	ISO 1183

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PROCESSING PARAMETERS	TYPICAL VALUE	Unit
Injection Molding		
Drying Temperature	120 - 150	°C
Drying Time	4	hrs
Maximum Moisture Content	0.05	%
Melt Temperature	360 - 370	°C
Front - Zone 3 Temperature	350 - 360	°C
Middle - Zone 2 Temperature	340 - 350	°C
Rear - Zone 1 Temperature	325 - 340	°C
Mold Temperature	150	°C
Back Pressure	0.2 - 0.3	MPa
Screw Speed	30 - 60	rpm

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