



## LNP™ LUBRICOMP™ Compound AL002

### Americas: COMMERCIAL

Also known as: LNP™ LUBRICOMP™ Compound AL-4020

Product reorder name: AL002

LNP™ LUBRICOMP™ AL002 is a compound based on Acrylonitrile Butadiene Styrene resin containing 10% PTFE. Added feature of this material is: Wear Resistant.

TYPICAL PROPERTIES <sup>1</sup>	TYPICAL VALUE	Unit	Standard
<b>MECHANICAL</b>			
Tensile Stress, yield	370	kgf/cm <sup>2</sup>	ASTM D 638
Tensile Stress, break	330	kgf/cm <sup>2</sup>	ASTM D 638
Tensile Strain, yield	2.6	%	ASTM D 638
Tensile Strain, break	21	%	ASTM D 638
Tensile Modulus, 50 mm/min	21700	kgf/cm <sup>2</sup>	ASTM D 638
Flexural Stress	630	kgf/cm <sup>2</sup>	ASTM D 790
Flexural Modulus	22400	kgf/cm <sup>2</sup>	ASTM D 790
Tensile Stress, yield	37	MPa	ISO 527
Tensile Stress, break	32	MPa	ISO 527
Tensile Strain, yield	2.2	%	ISO 527
Tensile Strain, break	32.2	%	ISO 527
Tensile Modulus, 1 mm/min	1940	MPa	ISO 527
Flexural Stress	63	MPa	ISO 178
Flexural Modulus	2200	MPa	ISO 178
<b>IMPACT</b>			
Izod Impact, unnotched, 23°C	86	cm-kgf/cm	ASTM D 4812
Izod Impact, notched, 23°C	5	cm-kgf/cm	ASTM D 256
Izod Impact, unnotched 80°10°4 +23°C	42	kJ/m <sup>2</sup>	ISO 180/1U
Izod Impact, notched 80°10°4 +23°C	5	kJ/m <sup>2</sup>	ISO 180/1A
<b>THERMAL</b>			
HDT, 0.45 MPa, 3.2 mm, unannealed	91	°C	ASTM D 648
HDT, 1.82 MPa, 3.2mm, unannealed	89	°C	ASTM D 648
CTE, -40°C to 40°C, flow	9.54E-05	1/°C	ASTM E 831

(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 <sup>1</sup>	TYPICAL VALUE	Unit	Standard
<b>THERMAL</b>			
CTE, -40°C to 40°C, xflow	9.54E-05	1/°C	ASTM E 831
CTE, -40°C to 40°C, flow	9.6E-05	1/°C	ISO 11359-2
CTE, -40°C to 40°C, xflow	9.5E-05	1/°C	ISO 11359-2
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	92	°C	ISO 75/Bf
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	84	°C	ISO 75/Af
<b>PHYSICAL</b>			
Density	1.1	g/cm <sup>3</sup>	ASTM D 792
Mold Shrinkage, flow, 24 hrs (5)	0.5 - 0.7	%	ASTM D 955
Mold Shrinkage, xflow, 24 hrs (5)	0.5 - 0.7	%	ASTM D 955
Mold Shrinkage, flow, 24 hrs (5)	0.5 - 0.7	%	ISO 294
Mold Shrinkage, xflow, 24 hrs (5)	0.5 - 0.7	%	ISO 294
Density	1.11	g/cm <sup>3</sup>	ISO 1183

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PROCESSING PARAMETERS	TYPICAL VALUE	Unit
<b>Injection Molding</b>		
Drying Temperature	80	°C
Drying Time	4	hrs
Maximum Moisture Content	0.05 - 0.1	%
Melt Temperature	260	°C
Front - Zone 3 Temperature	265 - 275	°C
Middle - Zone 2 Temperature	230 - 245	°C
Rear - Zone 1 Temperature	205 - 215	°C
Mold Temperature	70 - 80	°C
Back Pressure	0.2 - 0.3	MPa
Screw Speed	30 - 60	rpm

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