



LNP™ LUBRICOMP™ Compound AL003

Americas: COMMERCIAL

Also known as: LNP™ LUBRICOMP™ Compound AL-4030

Product reorder name: AL003

LNP™ LUBRICOMP™ AL003 is a compound based on Acrylonitrile Butadiene Styrene resin containing 15% PTFE. Added feature of this material is: Wear Resistant.

TYPICAL PROPERTIES ¹	TYPICAL VALUE	Unit	Standard
MECHANICAL			
Tensile Stress, yield	360	kgf/cm ²	ASTM D 638
Tensile Stress, break	330	kgf/cm ²	ASTM D 638
Tensile Strain, yield	2.3	%	ASTM D 638
Tensile Strain, break	14.7	%	ASTM D 638
Tensile Modulus, 50 mm/min	24600	kgf/cm ²	ASTM D 638
Flexural Stress	630	kgf/cm ²	ASTM D 790
Flexural Modulus	21000	kgf/cm ²	ASTM D 790
Tensile Stress, yield	35	MPa	ISO 527
Tensile Stress, break	32	MPa	ISO 527
Tensile Strain, yield	2.7	%	ISO 527
Tensile Strain, break	11.6	%	ISO 527
Tensile Modulus, 1 mm/min	2280	MPa	ISO 527
Flexural Stress	61	MPa	ISO 178
Flexural Modulus	2000	MPa	ISO 178
IMPACT			
Izod Impact, unnotched, 23°C	20	cm-kgf/cm	ASTM D 4812
Izod Impact, notched, 23°C	5	cm-kgf/cm	ASTM D 256
Instrumented Impact Energy @ peak, 23°C	116	cm-kgf	ASTM D 3763
Multiaxial Impact	83	cm-kgf	ISO 6603
Izod Impact, unnotched 80*10*4 +23°C	21	kJ/m ²	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	5	kJ/m ²	ISO 180/1A
THERMAL			
HDT, 1.82 MPa, 3.2mm, unannealed	77	°C	ASTM D 648



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THERMAL			
CTE, -40°C to 40°C, flow	9.54E-05	1/°C	ASTM E 831
CTE, -40°C to 40°C, xflow	9.36E-05	1/°C	ASTM E 831
CTE, -40°C to 40°C, flow	9.57E-05	1/°C	ISO 11359-2
CTE, -40°C to 40°C, xflow	9.5E-05	1/°C	ISO 11359-2
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	81	°C	ISO 75/Af
PHYSICAL			
Density	1.13	g/cm ³	ASTM D 792
Moisture Absorption, 50% RH, 24 hrs	0.2	%	ASTM D 570
Mold Shrinkage, flow, 24 hrs (5)	0.6 - 0.8	%	ASTM D 955
Mold Shrinkage, xflow, 24 hrs (5)	0.8 - 1	%	ASTM D 955
Mold Shrinkage, flow, 24 hrs (5)	0.6 - 0.8	%	ISO 294
Mold Shrinkage, xflow, 24 hrs (5)	0.8 - 1	%	ISO 294
Wear Factor Washer	100	10 ⁻¹⁰ in ⁵ -min/ft-lb-hr	ASTM D 3702 Modified
Dynamic COF	0.22	-	ASTM D 3702 Modified
Static COF	0.11	-	ASTM D 3702 Modified
Density	1.13	g/cm ³	ISO 1183
Moisture Absorption (23°C / 50% RH)	0.31	%	ISO 62



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PROCESSING PARAMETERS	TYPICAL VALUE	Unit
Injection Molding		
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