



LNP™ LUBRICOMP™ Compound SP003

Americas: COMMERCIAL

Also known as: LNP™ LUBRICOMP™ Compound SL-4530

Product reorder name: SP003

LNP LUBRICOMP SP003 is a compound based on Nylon 12 resin containing 15% PTFE/Silicone. Added feature of this material is: Wear Resistant.

TYPICAL PROPERTIES ¹	TYPICAL VALUE	Unit	Standard
MECHANICAL			
Tensile Stress, yield	380	kgf/cm ²	ASTM D 638
Tensile Stress, break	350	kgf/cm ²	ASTM D 638
Tensile Strain, yield	17.5	%	ASTM D 638
Tensile Strain, break	23.9	%	ASTM D 638
Tensile Modulus, 50 mm/min	14000	kgf/cm ²	ASTM D 638
Flexural Modulus	14000	kgf/cm ²	ASTM D 790
Tensile Stress, yield	38	MPa	ISO 527
Tensile Stress, break	36	MPa	ISO 527
Tensile Strain, yield	18.4	%	ISO 527
Tensile Strain, break	32.9	%	ISO 527
Tensile Modulus, 1 mm/min	1580	MPa	ISO 527
Flexural Stress	44	MPa	ISO 178
Flexural Modulus	1300	MPa	ISO 178
IMPACT			
Izod Impact, unnotched, 23°C	69	cm-kgf/cm	ASTM D 4812
Izod Impact, notched, 23°C	5	cm-kgf/cm	ASTM D 256
Instrumented Impact Energy @ peak, 23°C	50	cm-kgf	ASTM D 3763
Multiaxial Impact	79	cm-kgf	ISO 6603
Izod Impact, unnotched 80*10*4 +23°C	48	kJ/m ²	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	4	kJ/m ²	ISO 180/1A
THERMAL			
HDT, 0.45 MPa, 3.2 mm, unannealed	150	°C	ASTM D 648
HDT, 1.82 MPa, 3.2mm, unannealed	146	°C	ASTM D 648



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THERMAL			
CTE, -40°C to 40°C, flow	1.13E-04	1/°C	ASTM E 831
CTE, -40°C to 40°C, xflow	1.08E-04	1/°C	ASTM E 831
CTE, -40°C to 40°C, flow	1.12E-04	1/°C	ISO 11359-2
CTE, -40°C to 40°C, xflow	1.08E-04	1/°C	ISO 11359-2
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	134	°C	ISO 75/Bf
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	147	°C	ISO 75/Af
PHYSICAL			
Density	1.09	g/cm ³	ASTM D 792
Moisture Absorption, 50% RH, 24 hrs	0.2	%	ASTM D 570
Mold Shrinkage, flow, 24 hrs (5)	0.9 - 1.1	%	ASTM D 955
Mold Shrinkage, xflow, 24 hrs (5)	1.8 - 2	%	ASTM D 955
Mold Shrinkage, flow, 24 hrs (5)	1	%	ISO 294
Mold Shrinkage, xflow, 24 hrs (5)	1.9	%	ISO 294
Wear Factor Washer	13	10 ⁻¹⁰ in ⁵ -min/ft-lb-hr	ASTM D 3702 Modified
Dynamic COF	0.23	-	ASTM D 3702 Modified
Static COF	0.14	-	ASTM D 3702 Modified
Density	1.09	g/cm ³	ISO 1183



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PROCESSING PARAMETERS	TYPICAL VALUE	Unit
Injection Molding		
Drying Temperature	80	°C
Drying Time	4	hrs
Maximum Moisture Content	0.12 - 0.2	%
Melt Temperature	225 - 240	°C
Front - Zone 3 Temperature	225 - 240	°C
Middle - Zone 2 Temperature	220 - 230	°C
Rear - Zone 1 Temperature	215 - 225	°C
Mold Temperature	70 - 80	°C
Back Pressure	0.2 - 0.3	MPa
Screw Speed	30 - 60	rpm