



LNP™ LUBRICOMP™ Compound RL004S

Americas: COMMERCIAL

Also known as: LNP™ LUBRICOMP™ Compound RL-4040 HS

Product reorder name: RL004S

LNP LUBRICOMP™ RL004S is a compound based on Nylon 66 resin containing 20% PTFE. Added features of this material include: Heat Stabilized, Wear Resistant.

TYPICAL PROPERTIES ¹	TYPICAL VALUE	Unit	Standard
MECHANICAL			
Tensile Stress, yield	640	kgf/cm ²	ASTM D 638
Tensile Stress, break	640	kgf/cm ²	ASTM D 638
Tensile Strain, yield	5.4	%	ASTM D 638
Tensile Strain, break	6.2	%	ASTM D 638
Tensile Modulus, 50 mm/min	25300	kgf/cm ²	ASTM D 638
Flexural Stress	890	kgf/cm ²	ASTM D 790
Flexural Modulus	23200	kgf/cm ²	ASTM D 790
Tensile Stress, yield	55	MPa	ISO 527
Tensile Stress, break	55	MPa	ISO 527
Tensile Strain, yield	6.7	%	ISO 527
Tensile Strain, break	7.2	%	ISO 527
Tensile Modulus, 1 mm/min	2600	MPa	ISO 527
Flexural Stress	84	MPa	ISO 178
Flexural Modulus	2400	MPa	ISO 178
IMPACT			
Izod Impact, unnotched, 23°C	58	cm-kgf/cm	ASTM D 4812
Izod Impact, notched, 23°C	4	cm-kgf/cm	ASTM D 256
Instrumented Impact Energy @ peak, 23°C	33	cm-kgf	ASTM D 3763
Multiaxial Impact	9	cm-kgf	ISO 6603
Izod Impact, unnotched 80*10*4 +23°C	39	kJ/m ²	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	4	kJ/m ²	ISO 180/1A
THERMAL			
HDT, 1.82 MPa, 3.2mm, unannealed	70	°C	ASTM D 648



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THERMAL			
CTE, -40°C to 40°C, flow	9.72E-05	1/°C	ASTM E 831
CTE, -40°C to 40°C, xflow	7.92E-05	1/°C	ASTM E 831
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	65	°C	ISO 75/Af
PHYSICAL			
Density	1.27	g/cm ³	ASTM D 792
Moisture Absorption, 50% RH, 24 hrs	0.55	%	ASTM D 570
Mold Shrinkage, flow, 24 hrs (5)	1.9 - 3.3	%	ASTM D 955
Mold Shrinkage, xflow, 24 hrs (5)	1.9 - 3.3	%	ASTM D 955
Mold Shrinkage, flow, 24 hrs (5)	1.88 - 3.29	%	ISO 294
Mold Shrinkage, xflow, 24 hrs (5)	1.88 - 3.29	%	ISO 294
Wear Factor Washer	16	10 ⁻¹⁰ in ⁵ -min/ft-lb-hr	ASTM D 3702 Modified
Dynamic COF	0.32	-	ASTM D 3702 Modified
Static COF	0.21	-	ASTM D 3702 Modified
Density	1.27	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	0.15 - 0.25	%
Melt Temperature	275 - 290	°C
Front - Zone 3 Temperature	295 - 305	°C
Middle - Zone 2 Temperature	280 - 295	°C
Rear - Zone 1 Temperature	265 - 275	°C
Mold Temperature	80 - 95	°C
Back Pressure	0.2 - 0.3	MPa
Screw Speed	30 - 60	rpm