

## LNP\* Lubricomp\* Compound RP004S

Americas: COMMERCIAL

Also known as: LUBRICOMP RL-4540 HS  
Product Reorder Name: RP004S

LNP\* Lubricomp\* RP004S is a Nylon 6/6 compound containing PTFE. Characteristics of this grade are Internally Lubricated and Heat Stabilized.

### Property

TYPICAL PROPERTIES <sup>(1)</sup>			
MECHANICAL	Value	Unit	Standard
Tensile Stress, yld, Type I, 5 mm/min	61	MPa	ASTM D 638
Tensile Stress, brk, Type I, 5 mm/min	59	MPa	ASTM D 638
Tensile Strain, yld, Type I, 5 mm/min	4.8	%	ASTM D 638
Tensile Strain, brk, Type I, 5 mm/min	18	%	ASTM D 638
Tensile Modulus, 50 mm/min	2950	MPa	ASTM D 638
Flexural Modulus, 1.3 mm/min, 50 mm span	2150	MPa	ASTM D 790
Tensile Stress, yield, 5 mm/min	65	MPa	ISO 527
Tensile Stress, break, 5 mm/min	64	MPa	ISO 527
Tensile Strain, yield, 5 mm/min	4.8	%	ISO 527
Tensile Strain, break, 5 mm/min	19	%	ISO 527
Tensile Modulus, 1 mm/min	2750	MPa	ISO 527
Flexural Stress	78	MPa	ISO 178
Flexural Modulus, 2 mm/min	2220	MPa	ISO 178
IMPACT	Value	Unit	Standard
Izod Impact, unnotched, 23°C	1360	J/m	ASTM D 4812
Izod Impact, notched, 23°C	46	J/m	ASTM D 256
Multiaxial Impact	2	J	ISO 6603
Instrumented Impact Total Energy, 23°C	3	J	ASTM D 3763
Izod Impact, unnotched 80*10*4 +23°C	115	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
THERMAL	Value	Unit	Standard
HDT, 0.45 MPa, 3.2 mm, unannealed	184	°C	ASTM D 648
HDT, 1.82 MPa, 3.2mm, unannealed	57	°C	ASTM D 648
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	154	°C	ISO 75/Bf
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	57	°C	ISO 75/Af
PHYSICAL	Value	Unit	Standard
Specific Gravity	1.24	-	ASTM D 792
Moisture Absorption, 50% RH, 24 hrs	0.86	%	ASTM D 570
Mold Shrinkage, flow, 24 hrs	1 - 3	%	ASTM D 955
Mold Shrinkage, xflow, 24 hrs	1 - 3	%	ASTM D 955
Wear Factor Washer	4	10 <sup>-10</sup> in <sup>5</sup> -min/ft-lb-hr	ASTM D 3702 Modified
Wear Factor Ring	-1	10 <sup>-10</sup> in <sup>5</sup> -min/ft-lb-hr	ASTM D 3702 Modified
Dynamic COF	0.23	-	ASTM D 3702 Modified
Static COF	0.11	-	ASTM D 3702 Modified
Density	1.24	g/cm <sup>3</sup>	ISO 1183
Moisture Absorption (23°C / 50% RH)	1.2	%	ISO 62

## Processing

Parameter	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

Source GMD, last updated:2009/04/21

THESE PROPERTY VALUES ARE NOT INTENDED FOR SPECIFICATION PURPOSES.

PLEASE CHECK WITH YOUR [\(LOCAL SALES OFFICE\)](#) FOR AVAILABILITY IN YOUR REGION

(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.

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