

## LNP\* Lubricomp\* Compound RL4040HSUV

### Americas: COMMERCIAL

Also known as: LNP\* Lubricomp\* Compound RL-4040 HS UV

Product reorder name: RL4040HSUV

LNP\* Lubricomp\* RL4040HSUV is a compound based on PA66 containing PTFE. Characteristics are: Heat Stabilized, UV Stabilized and Internally Lubricated.

TYPICAL PROPERTIES <sup>1</sup>	TYPICAL VALUE	Unit	Standard
<b>MECHANICAL</b>			
Tensile Stress, yld, Type I, 5 mm/min	650	kgf/cm <sup>2</sup>	ASTM D 638
Tensile Stress, brk, Type I, 5 mm/min	650	kgf/cm <sup>2</sup>	ASTM D 638
Tensile Strain, yld, Type I, 5 mm/min	5.2	%	ASTM D 638
Tensile Strain, brk, Type I, 5 mm/min	7.9	%	ASTM D 638
Tensile Modulus, 5 mm/min	29400	kgf/cm <sup>2</sup>	ASTM D 638
Flexural Modulus, 1.3 mm/min, 50 mm span	26900	kgf/cm <sup>2</sup>	ASTM D 790
Tensile Stress, yield, 5 mm/min	63	MPa	ISO 527
Tensile Stress, break, 5 mm/min	5	MPa	ISO 527
Tensile Strain, yield, 5 mm/min	5.1	%	ISO 527
Tensile Strain, break, 5 mm/min	9.6	%	ISO 527
Tensile Modulus, 1 mm/min	2790	MPa	ISO 527
Flexural Stress	97	MPa	ISO 178
Flexural Modulus, 2 mm/min	2550	MPa	ISO 178
<b>IMPACT</b>			
Izod Impact, unnotched, 23°C	69	cm-kgf/cm	ASTM D 4812
Izod Impact, notched, 23°C	4	cm-kgf/cm	ASTM D 256
Multiaxial Impact	8	cm-kgf	ISO 6603
Instrumented Impact Total Energy, 23°C	44	cm-kgf	ASTM D 3763
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	236	°C	ASTM D 648
HDT, 1.82 MPa, 3.2mm, unannealed	64	°C	ASTM D 648

(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±176.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.

Source GMD, last updated:

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TYPICAL PROPERTIES <sup>1</sup>	TYPICAL VALUE	Unit	Standard
<b>THERMAL</b>			
CTE, -30°C to 30°C, flow	1.12E-04	1/°C	ASTM D 696
CTE, -30°C to 30°C, xflow	9.2E-05	1/°C	ASTM D 696
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	102	°C	ISO 75/Bf
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	62	°C	ISO 75/Af
<b>PHYSICAL</b>			
Specific Gravity	1.28	-	ASTM D 792
Density	1.274	g/cm <sup>3</sup>	ASTM D 792
Moisture Absorption, 50% RH, 24 hrs	0.75	%	ASTM D 570
Mold Shrinkage, flow, 24 hrs (5)	1 - 3	%	ASTM D 955
Mold Shrinkage, xflow, 24 hrs (5)	1 - 3	%	ASTM D 955
Wear Factor Washer	28	10 <sup>-10</sup> in <sup>5</sup> -min/ft-lb-hr	ASTM D 3702 Modified
Wear Factor Ring	0	10 <sup>-10</sup> in <sup>5</sup> -min/ft-lb-hr	ASTM D 3702 Modified
Dynamic COF	0.22	-	ASTM D 3702 Modified
Static COF	0.11	-	ASTM D 3702 Modified
Moisture Absorption (23°C / 50% RH)	1.1	%	ISO 62

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PROCESSING PARAMETERS	TYPICAL VALUE	Unit
<b>Injection Molding</b>		
Drying Temperature	80	°C
Drying Time	4	hrs
Maximum Moisture Content	0.15 - 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

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