

# LNPT<sup>™</sup> LUBRILLOY<sup>™</sup> COMPOUND R2000A

RL

## DESCRIPTION

LNP LUBRILLOY R2000A compound is based on Nylon 6/6 resin containing proprietary lubricant. Added features of this grade include: Wear Resistant.

GENERAL INFORMATION	
Features	Wear resistant, No PFAS intentionally added
Fillers	Unreinforced
Polymer Types	Polyamide 66 (Nylon 66)
Processing Techniques	Injection Molding

  

INDUSTRY	SUB INDUSTRY
Building and Construction	Building Component
Consumer	Sport/Leisure, Personal Accessory, Home Appliances, Commercial Appliance
Electrical and Electronics	Mobile Phone - Computer - Tablets
Industrial	Electrical

## TYPICAL PROPERTY VALUES

Revision 20231109

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
<b>MECHANICAL <sup>(1)</sup></b>			
Tensile Stress, yield	47	MPa	ASTM D638
Tensile Stress, break	43	MPa	ASTM D638
Tensile Strain, yield	6	%	ASTM D638
Tensile Strain, break	38.6	%	ASTM D638
Tensile Modulus, 50 mm/min	1990	MPa	ASTM D638
Flexural Stress	67	MPa	ASTM D790
Flexural Modulus	1930	MPa	ASTM D790
Tensile Stress, yield	43	MPa	ISO 527
Tensile Stress, break	43	MPa	ISO 527
Tensile Strain, yield	8.8	%	ISO 527
Tensile Strain, break	29.6	%	ISO 527
Tensile Modulus, 1 mm/min	2100	MPa	ISO 527
Flexural Stress	69	MPa	ISO 178
Flexural Modulus	2200	MPa	ISO 178
<b>IMPACT <sup>(1)</sup></b>			
Izod Impact, unnotched, 23°C	NB	J/m	ASTM D4812
Izod Impact, notched, 23°C	74	J/m	ASTM D256
Instrumented Dart Impact Energy @ peak, 23°C	6	J	ASTM D3763
Multiaxial Impact	1	J	ISO 6603
Izod Impact, unnotched 80*10*4 +23°C	137	kJ/m <sup>2</sup>	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	6	kJ/m <sup>2</sup>	ISO 180/1A

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
<b>THERMAL <sup>(1)</sup></b>			
HDT, 0.45 MPa, 3.2 mm, unannealed	66	°C	ASTM D648
HDT, 1.82 MPa, 3.2mm, unannealed	62	°C	ASTM D648
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	67	°C	ISO 75/Af
Relative Temp Index, Elec <sup>(2)</sup>	65	°C	UL 746B
Relative Temp Index, Mech w/impact <sup>(2)</sup>	65	°C	UL 746B
Relative Temp Index, Mech w/o impact <sup>(2)</sup>	65	°C	UL 746B
<b>PHYSICAL <sup>(1)</sup></b>			
Density	1.02	g/cm <sup>3</sup>	ASTM D792
Moisture Absorption, (23°C/50% RH/24 hrs)	0.3	%	ASTM D570
Mold Shrinkage, flow, 24 hrs <sup>(3)</sup>	2.6	%	ASTM D955
Mold Shrinkage, xflow, 24 hrs <sup>(3)</sup>	2.6	%	ASTM D955
Mold Shrinkage, flow, 24 hrs <sup>(3)</sup>	2.57	%	ISO 294
Mold Shrinkage, xflow, 24 hrs <sup>(3)</sup>	2.6	%	ISO 294
Wear Factor Washer	12	10 <sup>-4</sup> in <sup>3</sup> -min/ft-lb-hr	ASTM D3702 Modified: Manual
Dynamic COF	0.31	-	ASTM D3702 Modified: Manual
Static COF	0.27	-	ASTM D3702 Modified: Manual
Density	1.02	g/cm <sup>3</sup>	ISO 1183
Moisture Absorption (23°C / 50% RH)	0.43	%	ISO 62
<b>FLAME CHARACTERISTICS <sup>(2)</sup></b>			
UL Yellow Card Link	<a href="#">E121562-101283902</a>	-	-
UL Yellow Card Link 2	<a href="#">E207780-101283851</a>	-	-
UL Yellow Card Link 3	<a href="#">E45329-101283864</a>	-	-
UL Recognized, 94HB Flame Class Rating	1.5	mm	UL 94
<b>INJECTION MOLDING <sup>(4)</sup></b>			
Drying Temperature	80	°C	
Drying Time	4	Hrs	
Maximum Moisture Content	0.15 – 0.25	%	
Melt Temperature	270 – 280	°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	

(1) The information stated on Technical Datasheets should be used as indicative only for material selection purposes and not be utilized as specification or used for part or tool design.

(2) UL Ratings shown on the technical datasheet might not cover the full range of thicknesses and colors. For details, please see the UL Yellow Card.

(3) 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.

(4) Injection Molding parameters are only mentioned as general guidelines. These may not apply or may need adjustment in specific situations such as low shot sizes, large part molding, thin wall molding and gas-assist molding.



## ADDITIONAL PRODUCT NOTES

No PFAS intentionally added: The grade listed in this document does not contain PFAS intentionally added during Seller's manufacturing process and is not expected to contain unintentional PFAS impurities. Each user is responsible for evaluating the presence of unintentional PFAS impurities.

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