



# **LNP\* Lubricomp\* Compound IN001**

Americas: COMMERCIAL

Also known as: LNP\* Lubricomp\* Compound NYKON I

Product reorder name: IN001

LNP\* Nykon\* I is a compound basedon Nylon 6/12 unfilled. Characteristic of this grade is Internally Lubricated.

YPICAL PROPERTIES <sup>1</sup>	TYPICAL VALUE	Unit	Standard
MECHANICAL			
Tensile Stress, yld, Type I, 5 mm/min	620	kgf/cm²	ASTM D 638
Tensile Stress, brk, Type I, 5 mm/min	620	kgf/cm²	ASTM D 638
Tensile Strain, yld, Type I, 5 mm/min	3.2	%	ASTM D 638
Tensile Strain, brk, Type I, 5 mm/min	3.2	%	ASTM D 638
Tensile Modulus, 5 mm/min	30000	kgf/cm²	ASTM D 638
Flexural Modulus, 1.3 mm/min, 50 mm span	24400	kgf/cm²	ASTM D 790
Tensile Stress, yield, 5 mm/min	62	MPa	ISO 527
Tensile Stress, break, 5 mm/min	62	MPa	ISO 527
Tensile Strain, yield, 5 mm/min	4.1	%	ISO 527
Tensile Strain, break, 5 mm/min	4.1	%	ISO 527
Tensile Modulus, 1 mm/min	2750	MPa	ISO 527
Flexural Stress	90	MPa	ISO 178
Flexural Modulus, 2 mm/min	2490	MPa	ISO 178
IMPACT			
Izod Impact, unnotched, 23°C	27	cm-kgf/cm	ASTM D 4812
Izod Impact, notched, 23°C	3	cm-kgf/cm	ASTM D 256
Multiaxial Impact	6	cm-kgf	ISO 6603
Instrumented Impact Total Energy, 23°C	22	cm-kgf	ASTM D 3763
Izod Impact, unnotched 80*10*4 +23°C	24	kJ/m²	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	3	kJ/m²	ISO 180/1A
THERMAL			
HDT, 0.45 MPa, 3.2 mm, unannealed	174	°C	ASTM D 648
HDT, 1.82 MPa, 3.2mm, unannealed	69	°C	ASTM D 648

### Source GMD, last updated:

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<sup>(1)</sup> 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.

<sup>(2)</sup> 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.

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YPICAL PROPERTIES <sup>1</sup>	TYPICAL VALUE	Unit	Standard
THERMAL			
CTE, -30°C to 30°C, flow	8.9E-05	1/°C	ASTM D 696
CTE, -30°C to 30°C, xflow	9.6E-05	1/°C	ASTM D 696
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	152	°C	ISO 75/Bf
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	69	°C	ISO 75/Af
PHYSICAL			
Specific Gravity	1.09	-	ASTM D 792
Density	1.084	g/cm³	ASTM D 792
Moisture Absorption, 50% RH, 24 hrs	0.23	%	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
Moisture Absorption (23°C / 50% RH)	0.31	%	ISO 62

#### Source GMD, last updated:

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ROCESSING PARAMETERS	TYPICAL VALUE Unit		
Injection Molding			
Drying Temperature	80	°C	
Drying Time	4	hrs	
Maximum Moisture Content	0.12 - 0.2	%	
Melt Temperature	270 - 275	°C	
Front - Zone 3 Temperature	270 - 280	°C	
Middle - Zone 2 Temperature	260 - 270	°C	
Rear - Zone 1 Temperature	255 - 265	°C	
Mold Temperature	65 - 95	°C	
Back Pressure	0.2 - 0.3	MPa	
Screw Speed	30 - 60	rpm	

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