LNP™ LUBRILOY™ COMPOUND R2000I

DESCRIPTION

LNP LUBRILOY R2000I compound is based on Nylon 6/6 resin containing proprietary lubricant. Added features of this grade include: High Impact, Wear Resistant.

GENERAL INFORMATION	
Features	Wear resistant, Impact 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 20241017

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL [1]			
Tensile Stress, yield	59	MPa	ASTM D638
Tensile Stress, break	53	MPa	ASTM D638
Tensile Strain, yield	8	%	ASTM D638
Tensile Strain, break	31	%	ASTM D638
Tensile Modulus, 50 mm/min	2220	MPa	ASTM D638
Flexural Stress	80	MPa	ASTM D790
Flexural Modulus	2080	MPa	ASTM D790
Tensile Stress, yield	55	MPa	ISO 527
Tensile Stress, break	54	MPa	ISO 527
Tensile Strain, yield	16	%	ISO 527
Tensile Strain, break	64	%	ISO 527
Tensile Modulus, 1 mm/min	2160	MPa	ISO 527
Flexural Stress	74	MPa	ISO 178
Flexural Modulus	2000	MPa	ISO 178
IMPACT [1]			
Izod Impact, notched, 23°C	427	J/m	ASTM D256
Instrumented Dart Impact Energy @ peak, 23°C	76	J	ASTM D3763
Multiaxial Impact	65	J	ISO 6603
Izod Impact, unnotched 80*10*4 +23°C	137	kJ/m²	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	19	kJ/m²	ISO 180/1A
THERMAL [1]			

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
HDT, 0.45 MPa, 3.2 mm, unannealed	206	°C	ASTM D648
HDT, 1.82 MPa, 3.2mm, unannealed	63	°C	ASTM D648
CTE, -40°C to 40°C, flow	1.21E-04	1/°C	ASTM E831
CTE, -40°C to 40°C, xflow	1.12E-04	1/°C	ASTM E831
CTE, -40°C to 40°C, flow	1.21E-04	1/°C	ISO 11359-2
CTE, -40°C to 40°C, xflow	1.13E-04	1/°C	ISO 11359-2
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	188	°C	ISO 75/Bf
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	67	°C	ISO 75/Af
PHYSICAL (1)			
Density	1.1	g/cm³	ASTM D792
Moisture Absorption, (23°C/50% RH/24 hrs)	0.7	%	ASTM D570
Mold Shrinkage, flow, 24 hrs (2)	2.4 – 2.6	%	ASTM D955
Mold Shrinkage, xflow, 24 hrs (2)	2.4 – 2.6	%	ASTM D955
Mold Shrinkage, flow, 24 hrs (2)	2.43 – 2.6	%	ISO 294
Mold Shrinkage, xflow, 24 hrs (2)	2.43 – 2.43	%	ISO 294
Wear Factor Washer	8	10^-10 in^5-min/ft-lb-hr	ASTM D3702 Modified: Manual
Dynamic COF	0.31	-	ASTM D3702 Modified: Manual
Static COF	0.18	-	ASTM D3702 Modified: Manual
Density	1.1	g/cm³	ISO 1183
Moisture Absorption (23°C / 50% RH)	1.12	%	ISO 62
INJECTION MOLDING (3)			
Drying Temperature	80	°C	
Drying Time	4	Hrs	
Maximum Moisture Content	0.15 – 0.25	%	
Melt Temperature	280 – 305	°C	
Front - Zone 3 Temperature	295 – 305	°C	
Middle - Zone 2 Temperature	280 – 295	°C	
Rear - Zone 1 Temperature	265 – 275	°C	
Mold Temperature	95 – 110	°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) 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.

(3) 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.

DISCLAIMER