LNP™ LUBRILOY™ COMPOUND R2000

DESCRIPTION

LNP LUBRILOY R2000 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 20241017

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL [1]			
Tensile Stress, break	53	MPa	ISO 527
Tensile Strain, break	32.3	%	ISO 527
Flexural Modulus, 2 mm/min	2100	MPa	ISO 178
Flexural Modulus, 2 mm/min, 60°C	800	MPa	ISO 178
Flexural Modulus, 2 mm/min, 100°C	500	MPa	ISO 178
Flexural Stress, yield, 2 mm/min	77	MPa	ISO 178
Flexural Stress, yield, 2 mm/min, 60°C	32	MPa	ISO 178
Flexural Stress, yield, 2 mm/min, 100°C	18	MPa	ISO 178
Flexural Strain, break, 2 mm/min	7	%	ISO 178
Flexural Strain, break, 2 mm/min, 60°C	7	%	ISO 178
Flexural Strain, break, 2 mm/min, 100°C	7	%	ISO 178
Tensile Stress, yield	56	MPa	ASTM D638
Tensile Stress, break	55	MPa	ASTM D638
Tensile Strain, yield	14	%	ASTM D638
Tensile Strain, break	27	%	ASTM D638
Tensile Modulus, 50 mm/min	2410	MPa	ASTM D638
Flexural Stress	82	MPa	ASTM D790
Flexural Modulus	2310	MPa	ASTM D790
IMPACT [1]			
Izod Impact, notched 80*10*4 +23°C	6	kJ/m²	ISO 180/1A
Izod Impact, unnotched 80*10*4 +23°C	141	kJ/m²	ISO 180/1U
Izod Impact, notched, 23°C	62	J/m	ASTM D256

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
Izod Impact, unnotched, 23°C	1724	J/m	ASTM D4812
THERMAL [1]			
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	85	°C	ISO 75/Af
CTE, 23°C to 60°C, flow	7.70E-05	1/°C	ISO 11359-2
CTE, 23°C to 60°C, xflow	1.03E-04	1/°C	ISO 11359-2
HDT, 1.82 MPa, 3.2mm, unannealed	77	°C	ASTM D648
CTE, -40°C to 40°C, flow	7.74E-05	1/°C	ASTM E831
CTE, -40°C to 40°C, xflow	1.03E-04	1/°C	ASTM E831
Relative Temp Index, Elec [2]	65	°C	UL 746B
Relative Temp Index, Mech w/impact [2]	65	°C	UL 746B
Relative Temp Index, Mech w/o impact [2]	65	°C	UL 746B
PHYSICAL [1]			
Density	1.03	g/cm³	ISO 1183
Melt Volume Rate, MVR at 275°C/2.16 kg	15 – 20	cm³/10 min	ISO 1133
Density	1.03	g/cm³	ASTM D792
Moisture Absorption, (23°C/50% RH/24 hrs)	0.25	%	ASTM D570
Mold Shrinkage, flow, 24 hrs [3]	1.8 – 2.2	%	ASTM D955
Mold Shrinkage, xflow, 24 hrs [3]	2.1 – 3.1	%	ASTM D955
Wear Factor Washer	50	10^-10 in^5-min/ft-lb-hr	ASTM D3702 Modified: Manual
Dynamic COF	0.36	-	ASTM D3702 Modified: Manual
Static COF	0.27	-	ASTM D3702 Modified: Manual
FLAME CHARACTERISTICS [2]			
UL Yellow Card Link 2	E207780-101343870	-	-
UL Yellow Card Link 3	E45329-101344477	-	-
UL Yellow Card Link	E121562-101344544	-	-
UL Recognized, 94HB Flame Class Rating	1.5	mm	UL 94
INJECTION MOLDING [4]			
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.

MORE INFORMATION

For curve data and CAE cards, please visit and register at https://materialfinder.sabic-specialties.com

DISCLAIMER