

LNPT[™] LUBRICOMP[™] COMPOUND RX03643H

PDX-R-03643 HC

DESCRIPTION

LNP LUBRICOMP RX03643H compound is based on Nylon 6/6 resin containing 10% glass fiber and proprietary lubricant. Added features of this grade include: Wear Resistant.

GENERAL INFORMATION	
Features	Wear resistant, Healthcare/Formula lock, No PFAS intentionally added
Fillers	Glass Fiber
Polymer Types	Polyamide 66 (Nylon 66)
Processing Techniques	Injection Molding

INDUSTRY	SUB INDUSTRY
Hygiene and Healthcare	Pharmaceutical Packaging and Drug Delivery, Surgical devices, General Healthcare, Patient Testing
Packaging	Industrial Packaging

TYPICAL PROPERTY VALUES

Revision 20231109

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL ⁽¹⁾			
Tensile Stress, yield	96	MPa	ASTM D638
Tensile Stress, break	96	MPa	ASTM D638
Tensile Strain, yield	2.4	%	ASTM D638
Tensile Strain, break	2.4	%	ASTM D638
Tensile Modulus, 50 mm/min	5510	MPa	ASTM D638
Flexural Modulus	4820	MPa	ASTM D790
Tensile Stress, yield	95	MPa	ISO 527
Tensile Stress, break	95	MPa	ISO 527
Tensile Strain, yield	2.3	%	ISO 527
Tensile Strain, break	2.3	%	ISO 527
Tensile Modulus, 1 mm/min	5310	MPa	ISO 527
Flexural Stress	149	MPa	ISO 178
Flexural Modulus	4500	MPa	ISO 178
IMPACT ⁽¹⁾			
Izod Impact, unnotched, 23°C	421	J/m	ASTM D4812
Izod Impact, notched, 23°C	32	J/m	ASTM D256
Instrumented Dart Impact Energy @ peak, 23°C	6	J	ASTM D3763
Multiaxial Impact	2	J	ISO 6603
Izod Impact, unnotched 80°10*4 +23°C	28	kJ/m ²	ISO 180/1U
Izod Impact, notched 80°10*4 +23°C	3	kJ/m ²	ISO 180/1A
THERMAL ⁽¹⁾			
HDT, 0.45 MPa, 3.2 mm, unannealed	256	°C	ASTM D648

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
HDT, 1.82 MPa, 3.2mm, unannealed	238	°C	ASTM D648
CTE, -40°C to 40°C, flow	4.32E-05	1/°C	ASTM E831
CTE, -40°C to 40°C, xflow	7.38E-05	1/°C	ASTM E831
CTE, -40°C to 40°C, flow	4.2E-05	1/°C	ISO 11359-2
CTE, -40°C to 40°C, xflow	7.5E-05	1/°C	ISO 11359-2
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	252	°C	ISO 75/Bf
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	221	°C	ISO 75/Af
PHYSICAL ⁽¹⁾			
Density	1.25	g/cm ³	ASTM D792
Moisture Absorption, (23°C/50% RH/24 hrs)	0.9	%	ASTM D570
Mold Shrinkage, flow, 24 hrs ⁽²⁾	0.7 – 0.9	%	ASTM D955
Mold Shrinkage, xflow, 24 hrs ⁽²⁾	1 – 1.2	%	ASTM D955
Wear Factor Washer	158	10 ⁻¹⁰ in ⁴ -min/ft-lb-hr	ASTM D3702 Modified: Manual
Dynamic COF	0.46	-	ASTM D3702 Modified: Manual
Static COF	0.37	-	ASTM D3702 Modified: Manual
Density	1.24	g/cm ³	ISO 1183
INJECTION MOLDING ⁽³⁾			
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	

(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.

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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