

LNPT™ LUBRILLOY™ COMPOUND RX18020

REGION EUROPE

DESCRIPTION

LNPT™ LUBRILLOY™ RX18020 is a compound based on PA 66 resin containing Glass Fiber, Proprietary Lubricant. Added features include; Internally Lubricated,

GENERAL INFORMATION	
Applications	Structure
Features	Wear resistant, High stiffness/Strength, No PFAS intentionally added
Fillers	Glass Fiber
Polymer Types	Polyamide 66 (Nylon 66)
Processing Techniques	Injection Molding

TYPICAL PROPERTY VALUES

Revision 20240926

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL ⁽¹⁾			
Tensile Modulus, 1 mm/min	6100	MPa	ISO 527
Tensile Stress, break, 5 mm/min	121	MPa	ISO 527
Tensile Strain, break, 5 mm/min	4	%	ISO 527
Flexural Modulus, 2 mm/min	4800	MPa	ISO 178
Flexural Strength, 2 mm/min	174	MPa	ISO 178
Tensile Modulus, 5 mm/min	6200	MPa	ASTM D638
Tensile Stress, brk, Type I, 5 mm/min	118	MPa	ASTM D638
Tensile Strain, brk, Type I, 5 mm/min	4	%	ASTM D638
Flexural Modulus, 1.3 mm/min, 50 mm span	4600	MPa	ASTM D790
Flexural Strength, 1.3 mm/min, 50 mm span	160	MPa	ASTM D790
IMPACT ⁽¹⁾			
Izod Impact, notched 80*10*4 +23°C	8	kJ/m ²	ISO 180/1A
Izod Impact, unnotched 80*10*4 +23°C	53	kJ/m ²	ISO 180/1U
Charpy 23°C, V-notch Edgew 80*10*4 sp=62mm	8	kJ/m ²	ISO 179/1eA
Charpy 23°C, Unnotch Edgew 80*10*4 sp=62mm	65	kJ/m ²	ISO 179/1eU
Izod Impact, notched, 23°C	60	J/m	ASTM D256
Izod Impact, unnotched, 23°C	757	J/m	ASTM D4812
THERMAL ⁽¹⁾			
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	231	°C	ISO 75/Af
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	255	°C	ISO 75/Bf
Vicat Softening Temp, Rate B/50	244	°C	ISO 306
Vicat Softening Temp, Rate B/120	246	°C	ISO 306
CTE, 23°C to 60°C, flow	3.8E-05	1/°C	ISO 11359-2
CTE, 23°C to 60°C, xflow	9.6E-05	1/°C	ISO 11359-2
HDT, 1.82 MPa, 3.2mm, unannealed	247	°C	ASTM D648
HDT, 0.45 MPa, 3.2 mm, unannealed	257	°C	ASTM D648

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
PHYSICAL ⁽¹⁾			
Density	1.21	g/cm ³	ISO 1183
Moisture Absorption (23°C / 50% RH)	0.2 – 0.4	%	ISO 62
Melt Volume Rate, MVR at 300°C/ 1.2 kg	69	cm ³ /10 min	ISO 1133
Specific Gravity	1.21	-	ASTM D792
Moisture Absorption, (23°C/50% RH/24 hrs)	0.1 – 0.2	%	ASTM D570
Wear Factor Washer	8	10 ⁻¹⁰ in ⁴ 5-min/ft-lb-hr	ASTM D3702 Modified: Manual
Dynamic COF	0.34	-	ASTM D3702 Modified: Manual
Static COF	0.51	-	ASTM D3702 Modified: Manual
Mold Shrinkage, flow	0.5 – 0.7	%	SABIC method
Mold Shrinkage, xflow	1.1 – 1.3	%	SABIC method
FLAME CHARACTERISTICS ⁽²⁾			
Glow Wire Ignitability Temperature, 1.5 mm	700	°C	IEC 60695-2-13
Glow Wire Ignitability Temperature, 1.0 mm	700	°C	IEC 60695-2-13
Glow Wire Ignitability Temperature, 0.8 mm	700	°C	IEC 60695-2-13
Glow Wire Flammability Index, 1.5 mm	675	°C	IEC 60695-2-12
Glow Wire Flammability Index, 1.0 mm	675	°C	IEC 60695-2-12
Glow Wire Flammability Index, 0.8 mm	675	°C	IEC 60695-2-12
INJECTION MOLDING ⁽³⁾			
Drying Temperature	95 – 100	°C	
Drying Time	6 – 8	Hrs	
Drying Time (Cumulative)	12	Hrs	
Melt Temperature	250 – 280	°C	
Rear - Zone 1 Temperature	240 – 260	°C	
Middle - Zone 2 Temperature	250 – 270	°C	
Front - Zone 3 Temperature	260 – 280	°C	
Nozzle Temperature	255 – 275	°C	
Mold Temperature	60 – 90	°C	
Back Pressure	0.3 – 0.7	MPa	
Screw Speed	60 – 100	rpm	
Vent Depth	0.025 – 0.076	mm	
Shot to Cylinder Size	40 – 60	%	

(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) 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.

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