LNP™ LUBRILOY™ COMPOUND UX98388

PDX-U-98388

DESCRIPTION

LNP LUBRILOY UX98388 compound is based on Polyphthalamide (PPA) resin containing proprietary lubricant. Added features of this grade include: Wear Resistant.

GENERAL INFORMATION	
Features	Wear resistant, High temperature resistance, No PFAS intentionally added
Fillers	Unreinforced
Polymer Types	Polyphthalamide (PPA)
Processing Techniques	Injection Molding

INDUSTRY	SUB INDUSTRY
Automotive	Automotive Under the Hood, Automotive Exteriors

TYPICAL PROPERTY VALUES

Revision 20231109

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL [1]			
Tensile Strain, yld, Type I, 5 mm/min	5.5	%	ASTM D638
Tensile Strain, brk, Type I, 5 mm/min	12	%	ASTM D638
Tensile Stress, yld, Type I, 5 mm/min	77	MPa	ASTM D638
Tensile Stress, brk, Type I, 5 mm/min	67	MPa	ASTM D638
Tensile Modulus, 5 mm/min	2824	MPa	ASTM D638
Flexural Modulus, 1.3 mm/min, 50 mm span	2200	MPa	ASTM D790
Tensile Stress, yield, 5 mm/min	77	MPa	ISO 527
Tensile Stress, break, 5 mm/min	67	MPa	ISO 527
Tensile Strain, yield, 5 mm/min	6.1	%	ISO 527
Tensile Modulus, 1 mm/min	2654	MPa	ISO 527
Flexural Stress, yield, 2 mm/min	106	MPa	ISO 178
Flexural Modulus, 2 mm/min	2427	MPa	ISO 178
IMPACT [1]			
Izod Impact, unnotched, 23°C	NB	J/m	ASTM D4812
Izod Impact, notched, 23°C	88	J/m	ASTM D256
Izod Impact, unnotched 80*10*4 +23°C	NB	kJ/m²	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	9	kJ/m²	ISO 180/1A
Charpy 23°C, Unnotch Edgew 80*10*4 sp=62mm	NB	kJ/m²	ISO 179/1eU
Charpy 23°C, V-notch Edgew 80*10*4 sp=62mm	10	kJ/m²	ISO 179/1eA
THERMAL [1]			
HDT, 0.45 MPa, 3.2 mm, unannealed	125	°C	ASTM D648
HDT, 1.82 MPa, 3.2mm, unannealed	109	°C	ASTM D648
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	120	°C	ISO 75/Bf

CHEMISTRY THAT MATTERS™

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	109	°C	ISO 75/Af
CTE, -40°C to 40°C, flow	2.7E-05	1/°C	ISO 11359-2
CTE, -40°C to 40°C, xflow	1.0E-04	1/°C	ISO 11359-2
CTE, 23°C to 60°C, xflow	9.1E-05	1/°C	ISO 11359-2
Vicat Softening Temp, Rate B/120	169	°C	ISO 306
Vicat Softening Temp, Rate B/50	169	°C	ISO 306
PHYSICAL (1)			
Specific Gravity	1.115	-	ASTM D792
Density	1.1	g/cm³	ISO 1183
Water Absorption, (23°C/24hrs)	0.5	%	ISO 62-1
Mold Shrinkage, flow (2)	1.2 – 1.7	%	SABIC method
Mold Shrinkage, xflow (2)	1.5 – 2	%	SABIC method
Wear Factor Washer	15	10^-10 in^5-min/ft-lb-hr	ASTM D3702 Modified: Manual
Dynamic COF	0.19	-	ASTM D3702 Modified: Manual
Static COF	0.16	-	ASTM D3702 Modified: Manual
INJECTION MOLDING (3)			
Drying Temperature	120	°C	
Drying Time	4	Hrs	
Maximum Moisture Content	0.15	%	
Melt Temperature	315 – 330	°C	
Front - Zone 3 Temperature	325 – 340	°C	
Middle - Zone 2 Temperature	315 – 325	°C	
Rear - Zone 1 Temperature	310 – 320	°C	
Mold Temperature	150 – 170	°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.

DISCLAIMER

CHEMISTRY THAT MATTERS™