

# LNP<sup>TM</sup> LUBRICOMP<sup>TM</sup> COMPOUND UX06425

UFL-4022 A HS HW

## DESCRIPTION

LNP LUBRICOMP UX06425 is a compound based on Polyphthalamide (PPA) containing 10% Glass Fiber, 10% PTFE. Added features of this material include: Wear Resistant, Hot Water Moldable and Heat Stabilized.

## TYPICAL PROPERTY VALUES

Revision 20191210

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
<b>MECHANICAL</b>			
Tensile Stress, brk, Type I, 5 mm/min	89	MPa	ASTM D 638
Tensile Strain, brk, Type I, 5 mm/min	1.5	%	ASTM D 638
Tensile Modulus, 50 mm/min	6610	MPa	ASTM D 638
Flexural Stress, brk, 1.3 mm/min, 50 mm span	132	MPa	ASTM D 790
Flexural Modulus, 1.3 mm/min, 50 mm span	5710	MPa	ASTM D 790
Tensile Stress, break, 5 mm/min	85	MPa	ISO 527
Tensile Strain, yield, 5 mm/min	1.4	%	ISO 527
Tensile Strain, break, 5 mm/min	1.4	%	ISO 527
Tensile Modulus, 1 mm/min	6420	MPa	ISO 527
Flexural Stress	126	MPa	ISO 178
Flexural Modulus, 2 mm/min	5440	MPa	ISO 178
<b>IMPACT</b>			
Izod Impact, unnotched, 23°C	197	J/m	ASTM D 4812
Izod Impact, notched, 23°C	33	J/m	ASTM D 256
Multiaxial Impact	1	J	ISO 6603
Instrumented Impact Total Energy, 23°C	3	J	ASTM D 3763
Izod Impact, unnotched 80°10°4 +23°C	12	kJ/m <sup>2</sup>	ISO 180/1U
Izod Impact, notched 80°10°4 +23°C	3	kJ/m <sup>2</sup>	ISO 180/1A
<b>THERMAL</b>			
HDT, 0.45 MPa, 3.2 mm, unannealed	293	°C	ASTM D 648
HDT, 1.82 MPa, 3.2mm, unannealed	260	°C	ASTM D 648
CTE, -30°C to 30°C, flow	4.1E-05	1/°C	ASTM D 696
CTE, -30°C to 30°C, xflow	7.5E-05	1/°C	ASTM D 696
HDT/Bf, 0.45 MPa Flatw 80°10°4 sp=64mm	289	°C	ISO 75/Bf
HDT/Af, 1.8 MPa Flatw 80°10°4 sp=64mm	254	°C	ISO 75/Af
<b>PHYSICAL</b>			
Specific Gravity	1.34	-	ASTM D 792
Density	1.33	g/cm <sup>3</sup>	ASTM D 792
Moisture Absorption, 50% RH, 24 hrs	0.31	%	ASTM D 570
Mold Shrinkage, flow, 24 hrs	0.7 – 0.9	%	ASTM D 955
Mold Shrinkage, xflow, 24 hrs	1 – 3	%	ASTM D 955
Wear Factor Washer	15	10 <sup>-10</sup> in <sup>^5</sup> -min/ft-lb-hr	ASTM D 3702 Modified: Manual
Wear Factor Ring	0	10 <sup>-10</sup> in <sup>^5</sup> -min/ft-lb-hr	ASTM D 3702 Modified: Manual
Dynamic COF	0.36	-	ASTM D 3702 Modified: Manual

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
Static COF	0.37	-	ASTM D 3702 Modified: Manual
Moisture Absorption (23°C / 50% RH)	0.5	%	ISO 62
<b>INJECTION MOLDING</b>			
Drying Temperature	120	°C	
Drying Time	4	hrs	
Maximum Moisture Content	0.06	%	
Minimum Moisture Content	0.03	%	
Melt Temperature	330 – 345	°C	
Front - Zone 3 Temperature	325 – 330	°C	
Rear - Zone 1 Temperature	320 – 325	°C	
Mold Temperature	65 – 95	°C	
Back Pressure	0.4	MPa	
Screw Speed	30 – 60	rpm	

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