

LNPTM LUBRICOMPTM COMPOUND UX06425

UFL-4022 A HS HW

DESCRIPTION

LNP LUBRICOMP UX06425 compound is based on Polyphthalamide (PPA) resin containing 10% glass fiber, 10% PTFE. Added features of this grade include: Wear Resistant, Hot Water Moldable and Heat Stabilized.

GENERAL INFORMATION	
Features	Heat Stabilized, Wear resistant, High temperature resistance
Fillers	Glass Fiber, PTFE
Polymer Types	Polyphthalamide (PPA)
Processing Techniques	Injection Molding

INDUSTRY	SUB INDUSTRY
Automotive	Automotive Under the Hood
Consumer	Home Appliances, Commercial Appliance
Electrical and Electronics	Electronic Components, Mobile Phone - Computer - Tablets

TYPICAL PROPERTY VALUES

Revision 20231109

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL ⁽¹⁾			
Tensile Stress, brk, Type I, 5 mm/min	89	MPa	ASTM D638
Tensile Strain, brk, Type I, 5 mm/min	1.5	%	ASTM D638
Tensile Modulus, 50 mm/min	6610	MPa	ASTM D638
Flexural Stress, brk, 1.3 mm/min, 50 mm span	132	MPa	ASTM D790
Flexural Modulus, 1.3 mm/min, 50 mm span	5710	MPa	ASTM D790
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
IMPACT ⁽¹⁾			
Izod Impact, unnotched, 23°C	197	J/m	ASTM D4812
Izod Impact, notched, 23°C	33	J/m	ASTM D256
Multiaxial Impact	1	J	ISO 6603
Instrumented Dart Impact Total Energy, 23°C	3	J	ASTM D3763
Izod Impact, unnotched 80°10*4 +23°C	12	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	293	°C	ASTM D648
HDT, 1.82 MPa, 3.2mm, unannealed	260	°C	ASTM D648

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
CTE, -30°C to 30°C, flow	4.1E-05	1/°C	ASTM D696
CTE, -30°C to 30°C, xflow	7.5E-05	1/°C	ASTM D696
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
PHYSICAL ⁽¹⁾			
Specific Gravity	1.34	-	ASTM D792
Density	1.33	g/cm ³	ASTM D792
Moisture Absorption, (23°C/50% RH/24 hrs)	0.31	%	ASTM D570
Mold Shrinkage, flow, 24 hrs ⁽²⁾	0.7 – 0.9	%	ASTM D955
Mold Shrinkage, xflow, 24 hrs ⁽²⁾	1 – 3	%	ASTM D955
Wear Factor Washer	15	10 ⁻¹⁰ in ⁴ -min/ft-lb-hr	ASTM D3702 Modified: Manual
Wear Factor Ring	0	10 ⁻¹⁰ in ⁴ -min/ft-lb-hr	ASTM D3702 Modified: Manual
Dynamic COF	0.36	-	ASTM D3702 Modified: Manual
Static COF	0.37	-	ASTM D3702 Modified: Manual
Moisture Absorption (23°C / 50% RH)	0.5	%	ISO 62
INJECTION MOLDING ⁽³⁾			
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	

(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.

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