

LNPTM LUBRICOMPTM COMPOUND UX06427

UCL-4036 A HS HW

DESCRIPTION

LNP LUBRICOMP UX06427 compound is based on Polyphthalamide (PPA) resin containing 30% carbon fiber, 15% PTFE. Added features of this grade include: Heat Stabilized, Hot Water Moldable, Wear Resistant, Electrically Conductive.

GENERAL INFORMATION	
Features	Electrically Conductive, Heat Stabilized, Wear resistant, Carbon fiber filled, High stiffness/Strength, High temperature resistance
Fillers	Carbon 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	224	MPa	ASTM D638
Tensile Strain, brk, Type I, 5 mm/min	1.2	%	ASTM D638
Tensile Modulus, 50 mm/min	25200	MPa	ASTM D638
Flexural Stress, brk, 1.3 mm/min, 50 mm span	311	MPa	ASTM D790
Flexural Modulus, 1.3 mm/min, 50 mm span	17200	MPa	ASTM D790
Tensile Stress, break, 5 mm/min	227	MPa	ISO 527
Tensile Strain, break, 5 mm/min	1.3	%	ISO 527
Tensile Modulus, 1 mm/min	22770	MPa	ISO 527
Flexural Modulus, 2 mm/min	19640	MPa	ISO 178
IMPACT ⁽¹⁾			
Izod Impact, unnotched, 23°C	646	J/m	ASTM D4812
Izod Impact, notched, 23°C	53	J/m	ASTM D256
Multiaxial Impact	2	J	ISO 6603
Izod Impact, unnotched 80°10*4 +23°C	40	kJ/m ²	ISO 180/1U
Izod Impact, notched 80°10*4 +23°C	5	kJ/m ²	ISO 180/1A
THERMAL ⁽¹⁾			
HDT, 0.45 MPa, 3.2 mm, unannealed	296	°C	ASTM D648
HDT, 1.82 MPa, 3.2mm, unannealed	284	°C	ASTM D648
CTE, -30°C to 30°C, flow	2.2E-05	1/°C	ASTM D696
CTE, -30°C to 30°C, xflow	3.4E-05	1/°C	ASTM D696

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	298	°C	ISO 75/Bf
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	284	°C	ISO 75/Af
PHYSICAL ⁽¹⁾			
Density	1.42	g/cm ³	ASTM D792
Moisture Absorption, (23°C/50% RH/24 hrs)	0.4	%	ASTM D570
Mold Shrinkage, flow, 24 hrs ⁽²⁾	0.06 – 0.09	%	ASTM D955
Mold Shrinkage, xflow, 24 hrs ⁽²⁾	0.6 – 0.9	%	ASTM D955
Wear Factor Washer	26	10 ⁻¹⁰ in ⁵ -min/ft-lb-hr	ASTM D3702 Modified: Manual
Dynamic COF	0.34	-	ASTM D3702 Modified: Manual
Static COF	0.33	-	ASTM D3702 Modified: Manual
Density	1.41	g/cm ³	ISO 1183
Moisture Absorption (23°C / 50% RH)	0.6	%	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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