

LNPTM LUBRICOMPTM COMPOUND UFL36SXP

UFL-4036 HS

DESCRIPTION

LNP LUBRICOMP UFL36SXP compound is based on Polyphthalamide (PPA) resin containing 30% glass fiber, 15% PTFE. Added features of this grade include: Internally Lubricated, Wear Resistant, Heat Stabilized.

GENERAL INFORMATION	
Features	Heat Stabilized, Wear resistant, High stiffness/Strength, 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	196	MPa	ASTM D638
Tensile Strain, brk, Type I, 5 mm/min	2.5	%	ASTM D638
Tensile Modulus, 5 mm/min	11000	MPa	ASTM D638
Flexural Strength, 1.3 mm/min, 50 mm span	275	MPa	ASTM D790
Flexural Modulus, 1.3 mm/min, 50 mm span	9870	MPa	ASTM D790
Tensile Stress, break, 5 mm/min	191	MPa	ISO 527
Tensile Strain, break, 5 mm/min	2.4	%	ISO 527
Tensile Modulus, 1 mm/min	10200	MPa	ISO 527
Flexural Strength, 2 mm/min	260	MPa	ISO 178
Flexural Modulus, 2 mm/min	9500	MPa	ISO 178
IMPACT ⁽¹⁾			
Izod Impact, unnotched, 23°C	950	J/m	ASTM D4812
Izod Impact, notched, 23°C	110	J/m	ASTM D256
Instrumented Dart Impact Energy @ peak, 23°C	6	J	ASTM D3763
Multiaxial Impact	2	J	ISO 6603
Izod Impact, unnotched 80°10°4 +23°C	50	kJ/m ²	ISO 180/1U
Izod Impact, notched 80°10°4 +23°C	12	kJ/m ²	ISO 180/1A
THERMAL ⁽¹⁾			
HDT, 1.82 MPa, 3.2mm, unannealed	260	°C	ASTM D648
HDT/Af, 1.8 MPa Flatw 80°10°4 sp=64mm	260	°C	ISO 75/Af
PHYSICAL ⁽¹⁾			

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
Density	1.55	g/cm ³	ASTM D792
Moisture Absorption, (23°C/50% RH/24 hrs)	0.33	%	ASTM D570
Mold Shrinkage, flow, 24 hrs ⁽²⁾	0.2	%	ASTM D955
Mold Shrinkage, xflow, 24 hrs ⁽²⁾	0.8	%	ASTM D955
Mold Shrinkage, flow, 24 hrs ⁽²⁾	0.2	%	ISO 294
Mold Shrinkage, xflow, 24 hrs ⁽²⁾	0.8	%	ISO 294
Wear Factor Washer	10	10 ⁴ -10 in ⁴ -min/ft-lb-hr	ASTM D3702 Modified: Manual
Dynamic COF	0.56	-	ASTM D3702 Modified: Manual
Static COF	0.46	-	ASTM D3702 Modified: Manual
Density	1.55	g/cm ³	ISO 1183
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.

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