LNP™ LUBRICOMP™ Compound UFL36AS

UFL-4036 A HS

DESCRIPTION

LNP LUBRICOMP UFL36AS compound is based on Polyphthalamide (PPA) resin containing 30% glass fiber, 15% PTFE. Added features of this grade include: Heat Stabilized, Internally Lubricated, Wear Resistant.

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 20260904

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL [1]			
Tensile Modulus, 5 mm/min	11200	MPa	ASTM D638
Tensile Strain, brk, Type I, 5 mm/min	1.7	%	ASTM D638
Tensile Stress, brk, Type I, 5 mm/min	189	MPa	ASTM D638
Flexural Modulus			
1.3 mm/min, 50 mm span	9900	MPa	ASTM D790
2 mm/min	10100	MPa	ISO 178
2 mm/min, 80°C	8400	MPa	ISO 178
2 mm/min, 100°C	7600	MPa	ISO 178
2 mm/min, 120°C	5400	MPa	ISO 178
2 mm/min, 150°C	3800	MPa	ISO 178
2 mm/min, 180°C	3500	MPa	ISO 178
2 mm/min, 200°C	3100	MPa	ISO 178
Flexural Strength, 1.3 mm/min, 50 mm span	250	MPa	ASTM D790
Tensile Modulus, 1 mm/min	11500	MPa	ISO 527
Tensile Strain, break, 5 mm/min	2.3	%	ISO 527
Tensile Stress, break, 5 mm/min	188	MPa	ISO 527
Flexural Strain, break, 2 mm/min	2.8	%	ISO 178
Flexural Strain, break, 2 mm/min, 80°C	3.1	%	ISO 178
Flexural Strain, break, 2 mm/min, 100°C	3.9	%	ISO 178
Flexural Strain, break, 2 mm/min, 120°C	5.3	%	ISO 178
Flexural Strain, break, 2 mm/min, 150°C	5	%	ISO 178

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PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
Flexural Strain, break, 2 mm/min, 180°C	4.8	%	ISO 178
Flexural Strain, break, 2 mm/min, 200°C	4.8	%	ISO 178
Flexural Stress, yield			
2 mm/min	260	MPa	ISO 178
2 mm/min, 80°C	214	MPa	ISO 178
2 mm/min, 100°C	194	MPa	ISO 178
2 mm/min, 120°C	141	MPa	ISO 178
2 mm/min, 150°C	97	MPa	ISO 178
2 mm/min, 180°C	82	MPa	ISO 178
2 mm/min, 200°C	71	MPa	ISO 178
IMPACT [1]			
Izod impact, notched			
23°C	90	J/m	ASTM D256
80*10*3 -40°C	9	kJ/m²	ISO 180/1A
80*10*4 +23°C	10	kJ/m²	ISO 180/1A
Izod Impact, Unnotched			
23°C	730	J/m	ASTM D4812
80*10*4 +23°C	50	kJ/m²	ISO 180/1U
80*10*4 -40°C	45	kJ/m²	ISO 180/1U
Instrumented Dart Impact Total Energy, 23°C	8	J	ASTM D3763
Charpy 23°C, V-notch Edgew 80*10*4 sp=62mm	12	kJ/m²	ISO 179/1eA
Charpy 23°C, Unnotch Edgew 80*10*4 sp=62mm	55	kJ/m²	ISO 179/1eU
THERMAL [1]			
HDT, 1.82 MPa, 3.2mm, unannealed	283	°C	ASTM D648
Vicat Softening Temp, Rate B/50	262	°C	ASTM D1525
CTE, -30°C to 30°C, flow	2.1E-05	1/°C	ASTM D696
CTE, -30°C to 30°C, xflow	4.5E-05	1/°C	ASTM D696
Thermal Conductivity	0.24	W/m-K	ASTM D5930
Specific Heat	1722	J/kg-K	ASTM E1269
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	275	°C	ISO 75/Af
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	293	°C	ISO 75/Bf
Vicat Softening Temp, Rate B/50	262	°C	ISO 306
Vicat Softening Temp, Rate B/120	258	°C	ISO 306
CTE, 23°C to 60°C, flow	2.2E-05	1/°C	ISO 11359-2
CTE, 23°C to 60°C, xflow	5.8E-05	1/°C	ISO 11359-2
PHYSICAL [1]			
Specific Gravity	1.58	-	ASTM D792
Moisture Absorption, (23°C/50% RH/24 hrs)	0.1 – 0.2	%	ASTM D570
Water Absorption, (23°C/24hrs)	0.3 – 0.4	%	ASTM D570
Melt Flow Rate			
340°C/1.2 kgf	28	g/10 min	ASTM D1238
Dynamic COF	0.51	-	ASTM D3702 Modified: Manual
Static COF	0.57	-	ASTM D3702 Modified: Manual
Wear Factor Washer	5	10^-10 in^5-min/ft-lb-hr	ASTM D3702 Modified: Manual
Density	1.58	g/cm³	ISO 1183

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PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
Moisture Absorption (23°C / 50% RH)	0.1 – 0.2	%	ISO 62
Water Absorption, (23°C/24hrs)	0.3 – 0.4	%	ISO 62-1
Melt Volume Rate			
340°C/1.2 kg	24	cm³/10 min	ISO 1133
Mold Shrinkage, flow [2]	0.2 – 0.4	%	SABIC method
Mold Shrinkage, xflow [2]	0.8 – 1	%	SABIC method
INJECTION MOLDING [3]			
Drying Temperature	120 – 150	°C	
Drying Time	4	Hrs	
Maximum Moisture Content	0.15	%	
Melt Temperature	315 – 330	°C	
Rear - Zone 1 Temperature	310 – 320	°C	
Middle - Zone 2 Temperature	315 – 325	°C	
Front - Zone 3 Temperature	325 – 340	°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.

MORE INFORMATION

For curve data and CAE cards, please visit and register at https://materialfinder.sabic-specialties.com

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