LNP™ LUBRICOMP™ COMPOUND EFL36

EFL-4036
REGION ASIA

DESCRIPTION

LNP* LUBRICOMP* EFL36 is a compound based on Polyetherimide resin containing 30% Glass Fiber, 15% PTFE. Added feature of this material is: Wear Resistant.

INDUSTRY	SUB INDUSTRY
Consumer	Commercial Appliance
Electrical and Electronics	Electrical Devices and Displays, Electrical Components and Infrastructure
Industrial	Defense

TYPICAL PROPERTY VALUES

Revision 20190729

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL			
Tensile Stress, break	175	MPa	ASTM D 638
Tensile Strain, break	2	%	ASTM D 638
Tensile Modulus, 50 mm/min	12680	MPa	ASTM D 638
Flexural Stress	252	MPa	ASTM D 790
Flexural Modulus	11300	MPa	ASTM D 790
Tensile Stress, break	168	MPa	ISO 527
Tensile Strain, break	2	%	ISO 527
Tensile Modulus, 1 mm/min	11180	MPa	ISO 527
Flexural Stress	248	MPa	ISO 178
Flexural Modulus	11390	MPa	ISO 178
IMPACT			
Izod Impact, unnotched, 23°C	710	J/m	ASTM D 4812
Izod Impact, notched, 23°C	122	J/m	ASTM D 256
Instrumented Impact Energy @ peak, 23°C	10	J	ASTM D 3763
Multiaxial Impact	3	J	ISO 6603
Izod Impact, unnotched 80*10*4 +23°C	46	kJ/m²	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	13	kJ/m²	ISO 180/1A
THERMAL			
HDT, 1.82 MPa, 3.2mm, unannealed	202	°C	ASTM D 648
CTE, -40°C to 40°C, flow	3.96E-05	1/°C	ASTM E 831
CTE, -40°C to 40°C, xflow	2.7E-05	1/°C	ASTM E 831
CTE, -40°C to 40°C, flow	3.98E-05	1/°C	ISO 11359-2
CTE, -40°C to 40°C, xflow	2.84E-05	1/°C	ISO 11359-2
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	204	°C	ISO 75/Af
Relative Temp Index, Elec (1)	180	°C	UL 746B
Relative Temp Index, Mech w/impact (1)	170	°C	UL 746B
Relative Temp Index, Mech w/o impact (1)	180	°C	UL 746B

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PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
PHYSICAL			
Density	1.62	g/cm³	ASTM D 792
Moisture Absorption, 50% RH, 24 hrs	0.15	%	ASTM D 570
Mold Shrinkage, flow, 24 hrs	0.1 – 0.3	%	ASTM D 955
Mold Shrinkage, xflow, 24 hrs	0.4 – 0.6	%	ASTM D 955
Mold Shrinkage, flow, 24 hrs	0.21 – 0.24	%	ISO 294
Mold Shrinkage, xflow, 24 hrs	0.35 – 0.47	%	ISO 294
Wear Factor Washer	35	10^-10 in^5-min/ft-lb-hr	ASTM D 3702 Modified: Manual
Dynamic COF	0.45	-	ASTM D 3702 Modified: Manual
Static COF	0.43	-	ASTM D 3702 Modified: Manual
Density	1.62	g/cm³	ISO 1183
Moisture Absorption (23°C / 50% RH)	0.22	%	ISO 62
ELECTRICAL			
Comparative Tracking Index (UL) {PLC}	3	PLC Code	UL 746A
Hot-Wire Ignition (HWI), PLC 0	≥0.75	mm	UL 746A
High Amp Arc Ignition (HAI), PLC 3	≥3	mm	UL 746A
High Amp Arc Ignition (HAI), PLC 4	≥0.75	mm	UL 746A
FLAME CHARACTERISTICS [1]			
UL Yellow Card Link	E207780-101283848	-	-
UL Recognized, 94V-0 Flame Class Rating	≥0.75	mm	UL 94
INJECTION MOLDING			
Drying Temperature	120 – 150	°C	
Drying Time	4 – 6	hrs	
Maximum Moisture Content	0.02	%	
Melt Temperature	360 – 365	°C	
Front - Zone 3 Temperature	365 – 375	°C	
Middle - Zone 2 Temperature	355 – 365	°C	
Rear - Zone 1 Temperature	345 – 355	°C	
Mold Temperature	120 – 150	°C	
Back Pressure	0.3 – 0.7	MPa	
Screw Speed	60 – 100	rpm	

(1) UL Ratings shown on the technical datasheet might not cover the full range of thicknesses and colors. For details, please see the UL Yellow Card.

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