LNP™ LUBRICOMP™ COMPOUND OFL36XXC

OFL-4036 LEX

DESCRIPTION

LNP LUBRICOMP OFL36XXC compound is based on Polyphenylene Sulfide (PPS) - linear resin containing 30% glass fiber, 15% PTFE. Added features of this grade include: Wear Resistant.

GENERAL INFORMATION	
Features	Wear resistant, High stiffness/Strength
Fillers	Glass Fiber, PTFE
Polymer Types	Polyphenylene Sulfide, Linear (PPS, Linear)
Processing Techniques	Injection Molding

INDUSTRY	SUB INDUSTRY
Building and Construction	Building Component
Consumer	Sport/Leisure, Personal Accessory, Home Appliances, Commercial Appliance
Electrical and Electronics	Mobile Phone - Computer - Tablets
Industrial	Electrical

TYPICAL PROPERTY VALUES

Revision 20231109

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL [1]			
Tensile Stress, brk, Type I, 5 mm/min	124	MPa	ASTM D638
Tensile Strain, brk, Type I, 5 mm/min	1.3	%	ASTM D638
Tensile Modulus, 50 mm/min	12800	MPa	ASTM D638
Flexural Stress, brk, 1.3 mm/min, 50 mm span	178	MPa	ASTM D790
Flexural Modulus, 1.3 mm/min, 50 mm span	11600	MPa	ASTM D790
Tensile Stress, break, 5 mm/min	121	MPa	ISO 527
Tensile Strain, break, 5 mm/min	1.3	%	ISO 527
Tensile Modulus, 1 mm/min	11990	MPa	ISO 527
Flexural Stress	180	MPa	ISO 178
Flexural Modulus, 2 mm/min	11050	MPa	ISO 178
IMPACT [1]			
Izod Impact, unnotched, 23°C	416	J/m	ASTM D4812
Izod Impact, notched, 23°C	60	J/m	ASTM D256
Instrumented Dart Impact Energy @ peak, 23°C	3	J	ASTM D3763
Multiaxial Impact	2	J	ISO 6603
Instrumented Dart Impact Total Energy, 23°C	11	J	ASTM D3763
Izod Impact, unnotched 80*10*4 +23°C	24	kJ/m²	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	5	kJ/m²	ISO 180/1A
THERMAL [1]			
HDT, 0.45 MPa, 3.2 mm, unannealed	278	°C	ASTM D648

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
HDT, 1.82 MPa, 3.2mm, unannealed	264	°C	ASTM D648
CTE, -40°C to 40°C, flow	2.3E-05	1/°C	ASTM E831
CTE, -40°C to 40°C, xflow	4.8E-05	1/°C	ASTM E831
CTE, -30°C to 30°C, flow	2.5E-05	1/°C	ASTM D696
CTE, -30°C to 30°C, xflow	3.4E-05	1/°C	ASTM D696
CTE, -40°C to 40°C, flow	2.4E-05	1/°C	ISO 11359-2
CTE, -40°C to 40°C, xflow	5.E-05	1/°C	ISO 11359-2
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	278	°C	ISO 75/Bf
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	257	°C	ISO 75/Af
Relative Temp Index, Elec (2)	105	°C	UL 746B
Relative Temp Index, Mech w/impact (2)	105	°C	UL 746B
Relative Temp Index, Mech w/o impact (2)	105	°C	UL 746B
PHYSICAL (1)			
Density	1.69	g/cm³	ASTM D792
Mold Shrinkage, flow, 24 hrs (3)	0.1 – 0.2	%	ASTM D955
Mold Shrinkage, xflow, 24 hrs (3)	0.6 – 0.8	%	ASTM D955
Mold Shrinkage, flow, 24 hrs (3)	0.13 – 0.18	%	ISO 294
Mold Shrinkage, xflow, 24 hrs (3)	0.3 – 0.48	%	ISO 294
Wear Factor Washer	52	10^-10 in^5-min/ft-lb-hr	ASTM D3702 Modified: Manual
Wear Factor Ring	7 – 8	10^-10 in^5-min/ft-lb-hr	ASTM D3702 Modified: Manual
Dynamic COF	0.44	-	ASTM D3702 Modified: Manual
Static COF	0.35	-	ASTM D3702 Modified: Manual
Density	1.7	g/cm³	ISO 1183
Moisture Absorption (23°C / 50% RH)	0.01	%	ISO 62
FLAME CHARACTERISTICS (2)			
UL Yellow Card Link 2	E207780-101282823	-	-
UL Recognized, 94V-0 Flame Class Rating	1.5	mm	UL 94
INJECTION MOLDING (4)			
Drying Temperature	120 – 150	°C	
Drying Time	4	Hrs	
Melt Temperature	315 – 320	°C	
Front - Zone 3 Temperature	330 – 345	°C	
Middle - Zone 2 Temperature	320 – 330	°C	
Rear - Zone 1 Temperature	305 – 315	°C	
Mold Temperature	140 – 165	°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) 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.

(3) 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.

(4) 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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