LNP™ LUBRICOMP™ COMPOUND EFL36E

EFL-4036 EM

DESCRIPTION

LNP LUBRICOMP EFL36E compound is based on Polyetherimide (PEI) resin containing 30% glass fiber, 15% PTFE. Added features of this grade include: Easy Molding, Wear Resistant.

GENERAL INFORMATION	
Features	Good Processability, Wear resistant, High stiffness/Strength, High temperature resistance
Fillers	Glass Fiber, PTFE
Polymer Types	Polyetherimide (PEI)
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, Defense

TYPICAL PROPERTY VALUES

Revision 20260424

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL [1]			
Tensile Modulus, 5 mm/min	11400	MPa	ASTM D638
Tensile Strain, brk, Type I, 5 mm/min	2.3	%	ASTM D638
Tensile Stress, brk, Type I, 5 mm/min	140	MPa	ASTM D638
Flexural Modulus, 1.3 mm/min, 50 mm span	8650	MPa	ASTM D790
Flexural Strength, 1.3 mm/min, 50 mm span	220	MPa	ASTM D790
Tensile Strain, break, 5 mm/min	2.4	%	ISO 527
Tensile Stress, break, 5 mm/min	150	MPa	ISO 527
Tensile Modulus, 1 mm/min	11200	MPa	ISO 527
Flexural Modulus, 2 mm/min	8900	MPa	ISO 178
Flexural Strength, 2 mm/min	210	MPa	ISO 178
IMPACT [1]			
Izod Impact, notched, 23°C	80	J/m	ASTM D256
Izod Impact, unnotched, 23°C	540	J/m	ASTM D4812
Izod Impact, notched 80*10*4 +23°C	9	kJ/m²	ISO 180/1A
Izod Impact, unnotched 80*10*4 +23°C	33	kJ/m²	ISO 180/1U
Charpy 23°C, V-notch Edgew 80*10*4 sp=62mm	14	kJ/m²	ISO 179/1eA
Charpy 23°C, Unnotch Edgew 80*10*4 sp=62mm	44	kJ/m²	ISO 179/1eU
THERMAL [1]			
HDT, 1.82 MPa, 3.2mm, unannealed	208	°C	ASTM D648
Vicat Softening Temp, Rate B/50	215	°C	ASTM D1525

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PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
CTE, 23°C to 60°C, flow	1.6E-05	1/°C	ISO 11359-2
CTE, 23°C to 60°C, xflow	4.1E-05	1/°C	ISO 11359-2
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	208	°C	ISO 75/Af
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	213	°C	ISO 75/Bf
Vicat Softening Temp, Rate B/120	210	°C	ISO 306
Vicat Softening Temp, Rate B/50	215	°C	ISO 306
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]			
Dynamic COF	0.77	-	ASTM D3702 Modified: Manual
Static COF	0.63	-	ASTM D3702 Modified: Manual
Wear Factor Washer	57	10^-10 in^5-min/ft-lb-hr	ASTM D3702 Modified: Manual
Moisture Absorption, (23°C/50% RH/24 hrs)	0.1 – 0.2	%	ASTM D570
Water Absorption, (23°C/24hrs)	0.2 – 0.3	%	ASTM D570
Density	1.6	g/cm³	ASTM D792
Melt Flow Rate			
350°C/2.16 kgf	8.2	g/10 min	ASTM D1238
Moisture Absorption (23°C / 50% RH)	0.06	%	ISO 62
Water Absorption, (23°C/24hrs)	0.2 – 0.3	%	ISO 62-1
Melt Volume Rate			
350°C/2.16kg	5.3	cm³/10 min	ISO 1133
Density	1.6	g/cm³	ISO 1183
Mold Shrinkage, flow [3]	0.1 – 0.3	%	SABIC method
Mold Shrinkage, xflow [3]	0.2 – 0.5	%	SABIC method
FLAME CHARACTERISTICS [2]			
UL Yellow Card Link	E45329-101343830	-	-
UL Recognized, 94V-0 Flame Class Rating	0.75	mm	UL 94
INJECTION MOLDING [4]			
Drying Temperature	150	°C	
Drying Time	4 – 6	Hrs	
Maximum Moisture Content	0.02	%	
Melt Temperature	360 – 375	°C	
Rear - Zone 1 Temperature	355 – 365	°C	
Middle - Zone 2 Temperature	360 – 370	°C	
Front - Zone 3 Temperature	365 – 375	°C	
Nozzle Temperature	365 – 375	°C	
Mold Temperature	140 – 180	°C	
Back Pressure	0.3 – 0.7	MPa	
Screw speed (Circumferential speed)	0.2 – 0.3	m/s	
Vent Depth	0.025 – 0.076	mm	

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(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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