LNP™ LUBRICOMP™ COMPOUND EFL36E

EFL-4036 EM

DESCRIPTION

LNP LUBRICOMP EFL36E is a compound based on Polyetherimide resin containing Glass Fiber, PTFE. Added features of this material include: Easy Molding.

TYPICAL PROPERTY VALUES

Revision 20191223

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL			
Tensile Modulus, 5 mm/min	11400	MPa	ASTM D 638
Tensile Strain, brk, Type I, 5 mm/min	2.3	%	ASTM D 638
Tensile Stress, brk, Type I, 5 mm/min	140	MPa	ASTM D 638
Flexural Modulus, 1.3 mm/min, 50 mm span	8650	MPa	ASTM D 790
Flexural Strength, 1.3 mm/min, 50 mm span	220	MPa	ASTM D 790
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			
Izod Impact, notched, 23°C	80	J/m	ASTM D 256
Izod Impact, unnotched, 23°C	540	J/m	ASTM D 4812
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			
HDT, 1.82 MPa, 3.2mm, unannealed	208	°C	ASTM D 648
Vicat Softening Temp, Rate B/50	215	°C	ASTM D 1525
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 [1]	105	°C	UL 746B
Relative Temp Index, Mech w/impact [1]	105	°C	UL 746B
Relative Temp Index, Mech w/o impact [1]	105	°C	UL 746B
PHYSICAL			
Dynamic COF	0.77	-	ASTM D 3702 Modified: Manual
Static COF	0.63	-	ASTM D 3702 Modified: Manual
Wear Factor Washer	57	10^-10 in^5-min/ft-lb-hr	ASTM D 3702 Modified: Manual
Moisture Absorption, 50% RH, 24 hrs	0.1 – 0.2	%	ASTM D 570

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PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
Water Absorption, 24 hours	0.2 – 0.3	%	ASTM D 570
Density	1.6	g/cm³	ASTM D 792
Melt Flow Rate, 350°C/2.16 kgf	8.2	g/10 min	ASTM D 1238
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, MVR at 350°C/2.16kg	5.3	cm³/10 min	ISO 1133
Density	1.6	g/cm³	ISO 1183
Mold Shrinkage, flow	0.1 – 0.3	%	SABIC method
Mold Shrinkage, xflow	0.2 – 0.5	%	SABIC method
FLAME CHARACTERISTICS (1)			
UL Yellow Card Link	E45329-101343830	-	-
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	
Rear - Zone 1 Temperature	345 – 355	°C	
Middle - Zone 2 Temperature	355 – 365	°C	
Front - Zone 3 Temperature	365 – 375	°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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