

LNP™ LUBRICOMP™ ECL36 compound

Polyether Imide
SABIC Innovative Plastics

Message:

LNP LUBRICOMP ECL36 is a compound based on Polyetherimide resin containing PTFE, Carbon Fiber. Added features of this material include: Internally Lubricated.
Also known as: LNP* LUBRICOMP* Compound ECL-4036
Product reorder name: ECL36

General Information			
Filler / Reinforcement	Carbon fiber reinforced material		
Additive	PTFE lubricant		
Features	Lubrication		
RoHS Compliance	RoHS compliance		
Processing Method	Injection molding		
Physical	Nominal Value	Unit	Test Method
Density	1.49	g/cm ³	ISO 1183
Melt Volume-Flow Rate (MVR) (345°C/10.0 kg)	4.00 - 6.00	cm ³ /10min	ISO 1133
Molding Shrinkage			ISO 294-4
Vertical flow direction: 24 hours	1.1	%	ISO 294-4
Flow direction: 24 hours	0.25	%	ISO 294-4
Water Absorption			ISO 62
23°C, 24 hr	0.32	%	ISO 62
Equilibrium, 23°C, 50% RH	0.21	%	ISO 62
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	21600	MPa	ISO 527-2/1
Tensile Stress (Break)	160	MPa	ISO 527-2/5
Tensile Strain (Break)	1.2	%	ISO 527-2/5
Flexural Modulus ¹			ISO 178
--	18500	MPa	ISO 178
80°C	17900	MPa	ISO 178
120°C	17400	MPa	ISO 178
150°C	16400	MPa	ISO 178
200°C	15300	MPa	ISO 178
Flexural Stress			ISO 178
--	256	MPa	ISO 178
80°C	214	MPa	ISO 178
120°C	182	MPa	ISO 178
150°C	145	MPa	ISO 178
200°C	91.0	MPa	ISO 178

Coefficient of Friction			ASTM D3702 Modified
With self-dynamics	0.39		ASTM D3702 Modified
With Self-Static	0.48		ASTM D3702 Modified
Flexural Strain at Break ²			ISO 178
--	1.6	%	ISO 178
80°C	1.5	%	ISO 178
120°C	1.4	%	ISO 178
150°C	1.6	%	ISO 178
200°C	1.0	%	ISO 178
Wear Factor - Washer	31.0	10 ⁻¹⁰ in ⁵ -min/ft-lb-hr	ASTM D3702 Modified
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact			ISO 180/1A
-40°C ³	7.0	kJ/m ²	ISO 180/1A
23°C ⁴	7.1	kJ/m ²	ISO 180/1A
Unnotched Izod Impact Strength ⁵			ISO 180/1U
-40°C	25	kJ/m ²	ISO 180/1U
23°C	25	kJ/m ²	ISO 180/1U
Thermal	Nominal Value	Unit	Test Method
Linear thermal expansion coefficient			ISO 11359-2
Flow: 23 to 60°C	9.0E-6	cm/cm/°C	ISO 11359-2
Lateral: 23 to 60°C	2.8E-5	cm/cm/°C	ISO 11359-2
Specific Heat	1890	J/kg/°C	ASTM E1269
Thermal Conductivity	0.33	W/m/K	ASTM D5930
Electrical	Nominal Value	Unit	Test Method
Surface Resistivity	10 - 1.0E+6	ohms	ASTM D257
Injection	Nominal Value	Unit	
Drying Temperature	121 - 149	°C	
Drying Time	4.0 - 6.0	hr	
Suggested Max Moisture	0.020	%	
Rear Temperature	343 - 354	°C	
Middle Temperature	354 - 366	°C	
Front Temperature	366 - 377	°C	
Processing (Melt) Temp	360 - 366	°C	
Mold Temperature	121 - 149	°C	
Back Pressure	0.344 - 0.689	MPa	
Screw Speed	60 - 100	rpm	
NOTE			
1.	2.0 mm/min		
2.	2 mm/min		
3.	80*10*3		
4.	80*10*4		
5.	80*10*4		

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Recommended distributors for this material

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