LNP™ LUBRICOMP™ ICL34 compound

Polyamide 612

SABIC Innovative Plastics

Message:

LNP LUBRICOMP ICL34 is a compound based on Nylon 6/12 containing 20% Carbon Fiber, 15% PTFE. Added features include: Wear Resistant.
Also known as: LNP* LUBRICOMP* Compound ICL-4034
Product reorder name: ICL34

General Information			
Filler / Reinforcement	Carbon Fiber,20% Filler by Weight		
Additive	PTFE Lubricant (15%)		
Features	Good Wear Resistance Lubricated		
Processing Method	Injection Molding		
Physical	**Nominal Value**	**Unit**	**Test Method**
Specific Gravity			ASTM D792
--	1.26	g/cm³	
--	1.25	g/cm³	
Molding Shrinkage			ASTM D955
Flow : 24 hr	0.10 to 0.40	%	
Across Flow : 24 hr	0.70 to 1.0	%	
Water Absorption			
24 hr, 50% RH	0.15	%	ASTM D570
Equilibrium, 23°C, 50% RH	0.23	%	ISO 62
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Modulus			
-- [1]	15700	MPa	ASTM D638
--	14800	MPa	ISO 527-2/1
Tensile Strength			
Yield [2]	182	MPa	ASTM D638
Yield	177	MPa	ISO 527-2/5
Break [3]	182	MPa	ASTM D638
Break	177	MPa	ISO 527-2/5
Tensile Elongation			
Yield [4]	2.6	%	ASTM D638
Yield	2.4	%	ISO 527-2/5
Break [5]	2.6	%	ASTM D638
Break	2.4	%	ISO 527-2/5
Flexural Modulus			
50.0 mm Span [6]	11800	MPa	ASTM D790

-- [7]	12000	MPa	ISO 178
Flexural Stress			
--	253	MPa	ISO 178
Yield, 50.0 mm Span [8]	267	MPa	ASTM D790
Break, 50.0 mm Span [9]	266	MPa	ASTM D790
Coefficient of Friction			ASTM D3702 Modified
vs. Itself - Dynamic	0.48		
vs. Itself - Static	0.33		
Wear Factor			ASTM D3702 Modified
Ring	0.300	10^-10 in^5-min/ft-lb-hr	
Washer	14.5	10^-10 in^5-min/ft-lb-hr	
Impact	**Nominal Value**	**Unit**	**Test Method**
Notched Izod Impact			
23°C	95	J/m	ASTM D256
23°C [10]	10	kJ/m²	ISO 180/1A
Unnotched Izod Impact			
23°C	830	J/m	ASTM D4812
23°C [11]	51	kJ/m²	ISO 180/1U
Instrumented Dart Impact			
23°C, Total Energy	8.60	J	ASTM D3763
--	2.70	J	ISO 6603-2
Thermal	**Nominal Value**	**Unit**	**Test Method**
Deflection Temperature Under Load			
0.45 MPa, Unannealed, 3.20 mm	215	°C	ASTM D648
0.45 MPa, Unannealed, 64.0 mm Span [12]	212	°C	ISO 75-2/Bf
1.8 MPa, Unannealed, 3.20 mm	200	°C	ASTM D648
1.8 MPa, Unannealed, 64.0 mm Span [13]	194	°C	ISO 75-2/Af
CLTE			ASTM D696
Flow : -30 to 30°C	2.7E-5	cm/cm/°C	
Transverse : -30 to 30°C	8.1E-5	cm/cm/°C	
Injection	**Nominal Value**	**Unit**	
Drying Temperature	82.2	°C	
Drying Time	4.0	hr	
Suggested Max Moisture	0.12 to 0.20	%	
Rear Temperature	254 to 266	°C	
Middle Temperature	260 to 271	°C	
Front Temperature	271 to 282	°C	
Processing (Melt) Temp	271 to 277	°C	
Mold Temperature	65.6 to 93.3	°C	
Back Pressure	0.172 to 0.344	MPa	
Screw Speed	30 to 60	rpm	
NOTE			

1.	50 mm/min
2.	Type I, 5.0 mm/min
3.	Type I, 5.0 mm/min
4.	Type I, 5.0 mm/min
5.	Type I, 5.0 mm/min
6.	1.3 mm/min
7.	2.0 mm/min
8.	1.3 mm/min
9.	1.3 mm/min
10.	80*10*4
11.	80*10*4
12.	80*10*4 mm
13.	80*10*4 mm

Recommended distributors for this material

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