LNP™ LUBRICOMP™ IAL12 compound

Polyamide 612

SABIC Innovative Plastics

Message:

LNP* LUBRICOMP* IAL12 is a compound based on Nylon 6/12 resin containing 5% PTFE, 10% Aramid Fiber. Added feature of this material is: Wear Resistant.
Also known as: LNP* LUBRICOMP* Compound IAL-4012
Product reorder name: IAL12

General Information			
Filler / Reinforcement	Aramid Fiber,10% Filler by Weight		
Additive	PTFE Lubricant (5%)		
Features	Good Wear Resistance Lubricated		
Processing Method	Injection Molding		
Physical	**Nominal Value**	**Unit**	**Test Method**
Specific Gravity			
--	1.13	g/cm³	ASTM D792
--	1.12	g/cm³	ISO 1183
Molding Shrinkage			ASTM D955
Flow : 24 hr	1.0 to 3.0	%	
Across Flow : 24 hr	2.0 to 4.0	%	
Water Absorption			
24 hr, 50% RH	0.21	%	ASTM D570
Equilibrium, 23°C, 50% RH	0.32	%	ISO 62
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Modulus			
-- [1]	3170	MPa	ASTM D638
--	2920	MPa	ISO 527-2/1
Tensile Strength			
Break [2]	65.0	MPa	ASTM D638
Break	63.0	MPa	ISO 527-2/5
Tensile Elongation			
Yield [3]	8.1	%	ASTM D638
Yield	8.2	%	ISO 527-2/5
Break [4]	8.6	%	ASTM D638
Break	8.8	%	ISO 527-2/5
Flexural Modulus			
50.0 mm Span [5]	2840	MPa	ASTM D790
-- [6]	2630	MPa	ISO 178

Flexural Stress	74.0	MPa	ISO 178
Coefficient of Friction			ASTM D3702 Modified
vs. Itself - Dynamic	0.46		
vs. Itself - Static	0.41		
Wear Factor			ASTM D3702 Modified
Ring	0.0500	10^-10 in^5-min/ft-lb-hr	
Washer	31.0	10^-10 in^5-min/ft-lb-hr	
Impact	**Nominal Value**	**Unit**	**Test Method**
Notched Izod Impact			
23°C	43	J/m	ASTM D256
23°C [7]	2.2	kJ/m²	ISO 180/1A
Unnotched Izod Impact			
23°C	490	J/m	ASTM D4812
23°C [8]	39	kJ/m²	ISO 180/1U
Instrumented Dart Impact			
23°C, Total Energy	4.20	J	ASTM D3763
--	1.10	J	ISO 6603-2
Thermal	**Nominal Value**	**Unit**	**Test Method**
Deflection Temperature Under Load			
0.45 MPa, Unannealed, 3.20 mm	187	°C	ASTM D648
0.45 MPa, Unannealed, 64.0 mm Span [9]	172	°C	ISO 75-2/Bf
1.8 MPa, Unannealed, 3.20 mm	92.0	°C	ASTM D648
1.8 MPa, Unannealed, 64.0 mm Span [10]	90.0	°C	ISO 75-2/Af
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.	1.3 mm/min		
6.	2.0 mm/min		
7.	80*10*4		

8.	80*10*4
9.	80*10*4 mm
10.	80*10*4 mm

Recommended distributors for this material

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