LNP™ LUBRICOMP™ SCL36 compound

Polyamide 12

SABIC Innovative Plastics

Message:

LNP LUBRICOMP SCL36 is a compound based on Nylon 12 resin containing 15% PTFE, 30% Carbon Fiber. Added features of this material include: Wear Resistant, Electrically Conductive.
Also known as: LNP* LUBRICOMP* Compound SCL-4036
Product reorder name: SCL36

General Information			
Filler / Reinforcement	Carbon Fiber,30% Filler by Weight		
Additive	PTFE Lubricant (15%)		
Features	Electrically Conductive Good Wear Resistance Lubricated		
Processing Method	Injection Molding		
Physical	**Nominal Value**	**Unit**	**Test Method**
Specific Gravity	1.30	g/cm³	ASTM D792
Molding Shrinkage			ASTM D955
Flow : 24 hr	0.040 to 0.060	%	
Across Flow : 24 hr	0.40 to 0.60	%	
Water Absorption			
24 hr, 50% RH	0.090	%	ASTM D570
Equilibrium, 23°C, 50% RH	0.14	%	ISO 62
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Modulus			
-- [1]	21400	MPa	ASTM D638
--	19400	MPa	ISO 527-2/1
Tensile Strength			
Break [2]	157	MPa	ASTM D638
Break	130	MPa	ISO 527-2/5
Tensile Elongation			
Break [3]	2.0	%	ASTM D638
Break	1.0	%	ISO 527-2/5
Flexural Modulus			
50.0 mm Span [4]	15800	MPa	ASTM D790
-- [5]	16500	MPa	ISO 178
Flexural Stress			
--	206	MPa	ISO 178
Yield, 50.0 mm Span [6]	215	MPa	ASTM D790

Break, 50.0 mm Span [7]	214	MPa	ASTM D790
Coefficient of Friction			ASTM D3702 Modified
vs. Itself - Dynamic	0.41		
vs. Itself - Static	0.30		
Wear Factor			ASTM D3702 Modified
Ring	0.450	10^-10 in^5-min/ft-lb-hr	
Washer	22.5	10^-10 in^5-min/ft-lb-hr	
Impact	**Nominal Value**	**Unit**	**Test Method**
Notched Izod Impact			
23°C	130	J/m	ASTM D256
23°C [8]	130	kJ/m²	ISO 180/1A
Unnotched Izod Impact			
23°C	690	J/m	ASTM D4812
23°C [9]	39	kJ/m²	ISO 180/1U
Instrumented Dart Impact			
23°C, Total Energy	14.2	J	ASTM D3763
--	4.80	J	ISO 6603-2
Thermal	**Nominal Value**	**Unit**	**Test Method**
Deflection Temperature Under Load			
0.45 MPa, Unannealed, 3.20 mm	178	°C	ASTM D648
0.45 MPa, Unannealed, 64.0 mm Span [10]	177	°C	ISO 75-2/Bf
1.8 MPa, Unannealed, 3.20 mm	173	°C	ASTM D648
1.8 MPa, Unannealed, 64.0 mm Span [11]	170	°C	ISO 75-2/Af
CLTE			ASTM D696
Flow : -30 to 30°C	2.9E-5	cm/cm/°C	
Transverse : -30 to 30°C	6.3E-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	216 to 227	°C	
Middle Temperature	221 to 232	°C	
Front Temperature	227 to 238	°C	
Processing (Melt) Temp	227 to 238	°C	
Mold Temperature	71.1 to 82.2	°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.	1.3 mm/min		

5.	2.0 mm/min
6.	1.3 mm/min
7.	1.3 mm/min
8.	80*10*4
9.	80*10*4
10.	80*10*4 mm
11.	80*10*4 mm

Recommended distributors for this material

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