

LNP™ LUBRICOMP™ SX93441D compound

Polyamide 12

SABIC Innovative Plastics

Message:

LNP LUBRICOMP SX93441D is a compound based on Nylon 12 containing Proprietary Fillers. Characteristics of this grade are: Internally Lubricated.

Also known as: LNP* LUBRICOMP* Compound PDX-S-93441

Product reorder name: SX93441D

General Information			
Filler / Reinforcement	Proprietary		
Additive	Lubricant		
Features	Lubricated		
Processing Method	Injection Molding		
Physical	Nominal Value	Unit	Test Method
Specific Gravity			ASTM D792
--	1.20	g/cm ³	
--	1.19	g/cm ³	
Molding Shrinkage			ASTM D955
Flow : 24 hr	0.30 to 0.60	%	
Across Flow : 24 hr	0.90 to 2.0	%	
Water Absorption			
24 hr, 50% RH	0.15	%	ASTM D570
Equilibrium, 23°C, 50% RH	0.20	%	ISO 62
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus			
-- ¹	5410	MPa	ASTM D638
--	5420	MPa	ISO 527-2/1
Tensile Strength			
Yield ²	93.0	MPa	ASTM D638
Yield	92.0	MPa	ISO 527-2/5
Break ³	86.0	MPa	ASTM D638
Break	91.0	MPa	ISO 527-2/5
Tensile Elongation			
Yield ⁴	4.9	%	ASTM D638
Yield	4.9	%	ISO 527-2/5
Break ⁵	6.1	%	ASTM D638
Break	6.3	%	ISO 527-2/5
Flexural Modulus			
50.0 mm Span ⁶	4480	MPa	ASTM D790
-- ⁷	4720	MPa	ISO 178
Flexural Stress	136	MPa	ISO 178

Coefficient of Friction			ASTM D3702 Modified
vs. Itself - Dynamic	0.49		
vs. Itself - Static	0.48		
Wear Factor			ASTM D3702 Modified
Ring	7.45	10 ⁻¹⁰ in ⁵ -min/ft-lb-hr	
Washer	51.0	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	10	kJ/m ²	ISO 180/1A
Unnotched Izod Impact			
23°C	870	J/m	ASTM D4812
23°C ⁹	58	kJ/m ²	ISO 180/1U
Instrumented Dart Impact			
23°C, Total Energy	16.0	J	ASTM D3763
--	3.70	J	ISO 6603-2
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			
0.45 MPa, Unannealed, 3.20 mm	175	°C	ASTM D648
0.45 MPa, Unannealed, 64.0 mm Span ¹⁰	170	°C	ISO 75-2/Bf
1.8 MPa, Unannealed, 3.20 mm	161	°C	ASTM D648
1.8 MPa, Unannealed, 64.0 mm Span ¹¹	146	°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	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.	Type I, 5.0 mm/min		
5.	Type I, 5.0 mm/min		
6.	1.3 mm/min		
7.	2.0 mm/min		
8.	80*10*4		

9.	80*10*4
10.	80*10*4 mm
11.	80*10*4 mm

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