

LNP™ LUBRICOMP™ DX98306H compound

Polycarbonate

SABIC Innovative Plastics Asia Pacific

Message:

LNP LUBRICOMP DX98306H is a compound based on Polycarbonate resin containing PTFE, Silicone. Added features of this material include: Internally Lubricated, Low Extractible.

Also known as: LNP* LUBRICOMP* Compound PDX-D-98306 LE EES

Product reorder name: DX98306H

General Information			
Additive	PTFE + Silicone Lubricant		
Features	Low Extractables		
	Lubricated		
Processing Method	Injection Molding		
Physical	Nominal Value	Unit	Test Method
Specific Gravity			
--	1.48	g/cm ³	ASTM D792
--	1.29	g/cm ³	ISO 1183, ASTM D792
Melt Mass-Flow Rate (MFR) (300°C/1.2 kg)	8.5	g/10 min	ASTM D1238
Melt Volume-Flow Rate (MVR) (300°C/1.2 kg)	6.10	cm ³ /10min	ISO 1133
Molding Shrinkage			
Flow : 24 hr	0.50 to 0.70	%	ASTM D955
Flow : 3.20 mm	0.30 to 0.50	%	Internal Method
Across Flow : 24 hr	0.60 to 0.80	%	ASTM D955
Across Flow : 24 hr	0.74	%	ISO 294-4
Flow : 24 hr	0.64	%	ISO 294-4
Water Absorption			
24 hr, 50% RH	0.10	%	ASTM D570
Saturation, 23°C	0.20	%	ISO 62
Equilibrium, 23°C, 50% RH	0.10	%	ISO 62
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus			
-- ¹	5090	MPa	ASTM D638
-- ²	2070	MPa	ASTM D638
--	2140	MPa	ISO 527-2/1
Tensile Strength			
Yield	51.0	MPa	ASTM D638, ISO 527-2
Break	42.7	MPa	ASTM D638
Break ³	43.0	MPa	ASTM D638

Break	43.0	MPa	ISO 527-2
Break	48.0	MPa	ISO 527-2/5
Tensile Elongation			
Yield	5.3	%	ASTM D638, ISO 527-2
Break	33	%	ASTM D638
Break ⁴	2.3	%	ASTM D638
Break	38	%	ISO 527-2
Break	2.3	%	ISO 527-2/5
Flexural Modulus			
50.0 mm Span ⁵	5010	MPa	ASTM D790
--	2070	MPa	ASTM D790
--	2100	MPa	ISO 178
-- ⁶	5130	MPa	ISO 178
Flexural Stress			
--	71.0	MPa	ISO 178
--	90.0	MPa	ISO 178
Yield, 50.0 mm Span ⁷	85.0	MPa	ASTM D790
Coefficient of Friction			ASTM D3702 Modified
vs. Itself - Dynamic	0.37		
vs. Itself - Static	0.32		
Wear Factor - Washer	21.5	10 ⁻¹⁰ in ⁵ -min/ft-lb-hr	ASTM D3702 Modified
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength ⁸ (23°C)	5.8	kJ/m ²	ISO 179/1eA
Notched Izod Impact			
-30°C	69	J/m	ASTM D256
23°C	150	J/m	ASTM D256
-30°C ⁹	5.5	kJ/m ²	ISO 180/1A
23°C ¹⁰	13	kJ/m ²	ISO 180/1A
Unnotched Izod Impact			
23°C	1800	J/m	ASTM D4812
23°C ¹¹	180	kJ/m ²	ISO 180/1U
Instrumented Dart Impact			
23°C, Energy at Peak Load	34.1	J	ASTM D3763
--	32.9	J	ISO 6603-2
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			
0.45 MPa, Unannealed, 3.20 mm	132	°C	ASTM D648
0.45 MPa, Unannealed, 64.0 mm Span ¹²	133	°C	ISO 75-2/Bf
1.8 MPa, Unannealed, 3.20 mm	122	°C	ASTM D648
1.8 MPa, Unannealed, 64.0 mm Span ¹³	123	°C	ISO 75-2/Af
Vicat Softening Temperature			

--	141	°C	ASTM D1525, ISO 306/B50 11 ¹⁴
--	145	°C	ISO 306/B120
CLTE			
Flow : -40 to 40°C	7.6E-5	cm/cm/°C	ASTM E831
Flow : -40 to 40°C	7.5E-5	cm/cm/°C	ISO 11359-2
Transverse : -40 to 40°C	7.4E-5	cm/cm/°C	ASTM E831, ISO 11359-2
Flammability	Nominal Value		Test Method
Flame Rating (0.700 mm)	HB		UL 94
Injection	Nominal Value	Unit	
Drying Temperature	121	°C	
Drying Time	4.0	hr	
Suggested Max Moisture	0.020	%	
Rear Temperature	293 to 304	°C	
Middle Temperature	304 to 316	°C	
Front Temperature	310 to 321	°C	
Processing (Melt) Temp	299 to 316	°C	
Mold Temperature	82.2 to 110	°C	
Back Pressure	0.172 to 0.344	MPa	
Screw Speed	30 to 60	rpm	
NOTE			
1.	5.0 mm/min		
2.	50 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.	1.3 mm/min		
8.	80*10*4 sp=62mm		
9.	80*10*4		
10.	80*10*4		
11.	80*10*4		
12.	80*10*4 mm		
13.	80*10*4 mm		
14.	Rate B (120°C/h), Loading 2 (50 N)		

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