

LNP™ LUBRICOMP™ DP003EH compound

Polycarbonate

SABIC Innovative Plastics

Message:

LNP* LUBRICOMP* DP003EH is a compound based on Polycarbonate resin containing 15% PTFE/Silicone. Added features of this material include: Easy Molding, Wear Resistant, Healthcare.

Also known as: LNP* LUBRICOMP* Compound DL-4530 EM HC

Product reorder name: DP003EH

General Information			
Additive	PTFE + Silicone Lubricant (15%)		
Features	Good Moldability		
	Good Wear Resistance		
	Lubricated		
Uses	Medical/Healthcare Applications		
Processing Method	Injection Molding		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.26	g/cm ³	ASTM D792
Molding Shrinkage			ASTM D955
Flow : 24 hr	0.60 to 0.90	%	
Across Flow : 24 hr	0.70 to 1.0	%	
Water Absorption			
24 hr, 50% RH	0.13	%	ASTM D570
Equilibrium, 23°C, 50% RH	0.19	%	ISO 62
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus			
-- ¹	2030	MPa	ASTM D638
--	2010	MPa	ISO 527-2/1
Tensile Strength			
Yield	40.7	MPa	ASTM D638
Yield ²	49.0	MPa	ASTM D638
Yield	48.0	MPa	ISO 527-2/5
Break	46.2	MPa	ASTM D638
Break ³	43.0	MPa	ASTM D638
Break	46.0	MPa	ISO 527-2/5
Tensile Elongation			
Yield	5.0	%	ASTM D638
Yield ⁴	5.9	%	ASTM D638
Yield	5.7	%	ISO 527-2/5
Break	17	%	ASTM D638

Break ⁵	49	%	ASTM D638
Break	120	%	ISO 527-2/5
Flexural Modulus			
--	2060	MPa	ASTM D790
50.0 mm Span ⁶	2100	MPa	ASTM D790
-- ⁷	1930	MPa	ISO 178
Flexural Strength			
--	77.9	MPa	ASTM D790
--	61.0	MPa	ISO 178
Coefficient of Friction			
vs. Itself - Dynamic	0.29		
vs. Itself - Static	0.16		
Wear Factor			
Ring	-0.300	10 ⁻¹⁰ in ⁵ -min/ft-lb-hr	
Washer	28.0	10 ⁻¹⁰ in ⁵ -min/ft-lb-hr	
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact			
23°C	470	J/m	ASTM D256
23°C ⁸	41	kJ/m ²	ISO 180/1A
Unnotched Izod Impact			
23°C	1500	J/m	ASTM D4812
23°C ⁹	170	kJ/m ²	ISO 180/1U
Instrumented Dart Impact			
23°C, Total Energy	29.7	J	ASTM D3763
--	20.5	J	ISO 6603-2
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			
0.45 MPa, Unannealed, 3.20 mm	141	°C	ASTM D648
0.45 MPa, Unannealed, 64.0 mm Span ¹⁰	140	°C	ISO 75-2/Bf
1.8 MPa, Unannealed, 3.20 mm	128	°C	ASTM D648
1.8 MPa, Unannealed, 64.0 mm Span ¹¹	127	°C	ISO 75-2/Af
CLTE			
Flow : -30 to 30°C	7.8E-5	cm/cm/°C	
Transverse : -30 to 30°C	7.6E-5	cm/cm/°C	
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.	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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