

LNP™ LUBRICOMP™ 5CL23 compound

Polyvinylidene Fluoride

SABIC Innovative Plastics

Message:

LNP LUBRICOMP 5CL23 is a compound based on PVDF resin containing 15% Carbon Fiber, 10% PTFE. Added features include: Wear Resistant.
Also known as: LNP* LUBRICOMP* Compound FP-VCL-4023
Product reorder name: 5CL23

General Information			
Filler / Reinforcement	Carbon Fiber,15% Filler by Weight		
Additive	PTFE Lubricant (10%)		
Features	Good Wear Resistance		
	Lubricated		
Processing Method	Injection Molding		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.84	g/cm ³	ASTM D792
Molding Shrinkage			ASTM D955
Flow : 24 hr	0.30 to 0.50	%	
Across Flow : 24 hr	1.0 to 3.0	%	
Water Absorption			
24 hr, 50% RH	0.030	%	ASTM D570
Equilibrium, 23°C, 50% RH	0.050	%	ISO 62
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus			
-- ¹	15800	MPa	ASTM D638
--	14500	MPa	ISO 527-2/1
Tensile Strength			
Break ²	84.0	MPa	ASTM D638
Break	77.0	MPa	ISO 527-2/5
Tensile Elongation			
Break ³	0.80	%	ASTM D638
Break	0.70	%	ISO 527-2/5
Flexural Modulus			
50.0 mm Span ⁴	12500	MPa	ASTM D790
-- ⁵	11900	MPa	ISO 178
Flexural Stress			
--	100	MPa	ISO 178
Yield, 50.0 mm Span ⁶	108	MPa	ASTM D790
Coefficient of Friction			ASTM D3702 Modified
vs. Itself - Dynamic	0.53		

vs. Itself - Static	0.44		
Wear Factor			ASTM D3702 Modified
Ring	0.00	10 ⁻¹⁰ in ⁵ -min/ft-lb-hr	
Washer	5.00	10 ⁻¹⁰ in ⁵ -min/ft-lb-hr	
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact			
23°C	55	J/m	ASTM D256
23°C ⁷	5.6	kJ/m ²	ISO 180/1A
Unnotched Izod Impact			
23°C	200	J/m	ASTM D4812
23°C ⁸	13	kJ/m ²	ISO 180/1U
Instrumented Dart Impact			
23°C, Total Energy	13.5	J	ASTM D3763
--	3.30	J	ISO 6603-2
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			
0.45 MPa, Unannealed, 3.20 mm	168	°C	ASTM D648
0.45 MPa, Unannealed, 64.0 mm Span ⁹	166	°C	ISO 75-2/Bf
1.8 MPa, Unannealed, 3.20 mm	164	°C	ASTM D648
1.8 MPa, Unannealed, 64.0 mm Span ¹⁰	158	°C	ISO 75-2/Af
CLTE			ASTM D696
Flow : -30 to 30°C	2.1E-5	cm/cm/°C	
Transverse : -30 to 30°C	8.4E-5	cm/cm/°C	
Injection	Nominal Value	Unit	
Drying Temperature	120 to 150	°C	
Drying Time	4.0	hr	
Rear Temperature	190 to 210	°C	
Middle Temperature	210 to 225	°C	
Front Temperature	225 to 245	°C	
Processing (Melt) Temp	215 to 230	°C	
Mold Temperature	65.0 to 90.0	°C	
Back Pressure	0.170 to 0.340	MPa	
Screw Speed	30 to 60	rpm	
NOTE			
1.	5.0 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.	80*10*4		
8.	80*10*4		

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

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