LNP™ LUBRICOMP™ DCP32 compound

Polycarbonate

SABIC Innovative Plastics

Message:

LNP LUBRICOMP DCP32 is a compound based on Polycarbonate resin containing PTFE, Carbon Fiber, Silicone. Added features of this material include: Electrically Conductive, Internally Lubricated.
Also known as: LNP* LUBRICOMP* Compound DCL-4532
Product reorder name: DCP32

General Information			
Filler / Reinforcement	Carbon fiber reinforced material		
Additive	PTFE silicone lubricant		
Features	Conductivity Lubrication		
Processing Method	Injection molding		
Physical	**Nominal Value**	**Unit**	**Test Method**
Specific Gravity	1.30	g/cm³	ASTM D792, ISO 1183
Molding Shrinkage			
Flow: 24 hours	0.30 - 0.50	%	ASTM D955
Transverse flow: 24 hours	0.40 - 0.60	%	ASTM D955
Vertical flow direction: 24 hours	0.54	%	ISO 294-4
Flow direction: 24 hours	0.43	%	ISO 294-4
Water Absorption (24 hr, 50% RH)	0.10	%	ASTM D570
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Modulus			
-- [1]	7580	MPa	ASTM D638
--	7470	MPa	ISO 527-2/1
Tensile Strength			
Yield	91.7	MPa	ASTM D638
Yield [2]	92.1	MPa	ASTM D638
Yield	93.0	MPa	ISO 527-2, ISO 527-2/5
Fracture	91.7	MPa	ASTM D638
Fracture [3]	92.1	MPa	ASTM D638
Fracture	93.0	MPa	ISO 527-2, ISO 527-2/5
Tensile Elongation			
Yield	2.1	%	ASTM D638
Yield [4]	2.2	%	ASTM D638
Yield	2.2	%	ISO 527-2, ISO 527-2/5
Fracture	2.1	%	ASTM D638
Fracture [5]	2.2	%	ASTM D638

Fracture	2.2	%	ISO 527-2, ISO 527-2/5
Flexural Modulus			
50.0mm span [6]	6210	MPa	ASTM D790
--	6210	MPa	ASTM D790
--	6700	MPa	ISO 178
-- [7]	6700	MPa	ISO 178
Flexural Strength			
--	138	MPa	ASTM D790
--	142	MPa	ISO 178
Fracture, 50.0mm span [8]	139	MPa	ASTM D790
Coefficient of Friction			ASTM D3702 Modified
With self-dynamics	0.36		ASTM D3702 Modified
With Self-Static	0.37		ASTM D3702 Modified
Wear Factor - Washer	49.0	10^-10 in^5-min/ft-lb-hr	ASTM D3702 Modified
Impact	**Nominal Value**	**Unit**	**Test Method**
Notched Izod Impact			
23°C	91	J/m	ASTM D256
23°C [9]	9.1	kJ/m²	ISO 180/1A
Unnotched Izod Impact			
23°C	440	J/m	ASTM D4812
23°C [10]	29	kJ/m²	ISO 180/1U
Instrumented Dart Impact			
23°C, Energy at Peak Load	18.6	J	ASTM D3763
--	5.30	J	ISO 6603-2
Thermal	**Nominal Value**	**Unit**	**Test Method**
Deflection Temperature Under Load			
0.45 MPa, unannealed, 3.20mm	148	°C	ASTM D648
0.45 MPa, unannealed, 64.0mm span [11]	148	°C	ISO 75-2/Bf
1.8 MPa, unannealed, 3.20mm	144	°C	ASTM D648
1.8 MPa, unannealed, 64.0mm span [12]	144	°C	ISO 75-2/Af
Linear thermal expansion coefficient			ASTM E831, ISO 11359-2
Flow: -40 to 40°C	4.1E-5	cm/cm/°C	ASTM E831, ISO 11359-2
Lateral: -40 to 40°C	6.3E-5	cm/cm/°C	ASTM E831, ISO 11359-2
Injection	**Nominal Value**	**Unit**	
Drying Temperature	121	°C	
Drying Time	4.0	hr	
Suggested Max Moisture	0.020	%	
Rear Temperature	293 - 304	°C	
Middle Temperature	310 - 321	°C	
Front Temperature	321 - 332	°C	
Processing (Melt) Temp	304 - 327	°C	
Mold Temperature	82.2 - 110	°C	

Back Pressure	0.172 - 0.344	MPa
Screw Speed	30 - 60	rpm

NOTE	
1.	50 mm/min
2.	Type 1, 5.0 mm/min
3.	Type 1, 5.0 mm/min
4.	Type 1, 5.0 mm/min
5.	Type 1, 5.0 mm/min
6.	1.3 mm/min
7.	2.0 mm/min
8.	1.3 mm/min
9.	80*10*4
10.	80*10*4
11.	80*10*4 mm
12.	80*10*4 mm

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Recommended distributors for this material

Susheng Import & Export Trading Co.,Ltd.

Tel: +86 21 5895 8519

Phone: +86 13424755533

Email: sales@su-jiao.com

No. 215, Lianhe North Road, Fengxian District, Shanghai, China