

LNPTM LUBRICOMPTM COMPOUND DCL32

DCL-4032

DESCRIPTION

LNP LUBRICOMP DCL32 compound is based on Polycarbonate (PC) resin containing 10% carbon fiber and 15% PTFE. Added features of this grade include: Wear Resistant, Electrically Conductive.

GENERAL INFORMATION	
Features	Electrically Conductive, Wear resistant, High stiffness /Strength
Fillers	Carbon Fiber, PTFE
Polymer Types	Polycarbonate (PC)
Processing Techniques	Injection Molding

INDUSTRY	SUB INDUSTRY
Building and Construction	Building Component
Consumer	Sport /Leisure, Personal Accessory, Home Appliances, Commercial Appliance
Electrical and Electronics	Mobile Phone - Computer - Tablets
Industrial	Electrical

TYPICAL PROPERTY VALUES

Revision 20231109

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL ⁽¹⁾			
Tensile Stress, break, 5 mm/min	107	MPa	ISO 527
Tensile Strain, break, 5 mm/min	1.9	%	ISO 527
Tensile Modulus, 1 mm/min	8000	MPa	ISO 527
Flexural Stress, yield, 2 mm/min	151	MPa	ISO 178
Flexural Modulus, 2 mm/min	6900	MPa	ISO 178
IMPACT ⁽¹⁾			
Izod Impact, unnotched 80*10*4 +23°C	25	kJ/m ²	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	8	kJ/m ²	ISO 180/1A
THERMAL ⁽¹⁾			
CTE, 23°C to 60°C, flow	2.E-05	1 /°C	ISO 11359-2
CTE, 23°C to 60°C, xflow	8.2E-05	1 /°C	ISO 11359-2
HDT /Af, 1.8 MPa Flatw 80*10*4 sp=64mm	142	°C	ISO 75 /Af
Relative Temp Index, Elec ⁽²⁾	80	°C	UL 746B
Relative Temp Index, Mech w/impact ⁽²⁾	80	°C	UL 746B
Relative Temp Index, Mech w/o impact ⁽²⁾	80	°C	UL 746B
PHYSICAL ⁽¹⁾			
Mold Shrinkage, flow ⁽³⁾	0.2	%	SABIC method
Density	1.32	g/cm ³	ISO 1183
Water Absorption, (23°C/24hrs)	0.18	%	ISO 62-1
ELECTRICAL ⁽¹⁾			

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
Surface Resistivity	1.E+02 – 1.E+04	Ω	ASTM D257
FLAME CHARACTERISTICS ⁽²⁾			
UL Yellow Card Link	<u>E45329-101343781</u>	-	-
UL Recognized, 94V-0 Flame Class Rating	≥3	mm	UL 94
INJECTION MOLDING ⁽⁴⁾			
Drying Temperature	120	°C	
Drying Time	4	Hrs	
Maximum Moisture Content	0.02	%	
Melt Temperature	305 – 325	°C	
Front - Zone 3 Temperature	320 – 330	°C	
Middle - Zone 2 Temperature	310 – 320	°C	
Rear - Zone 1 Temperature	295 – 305	°C	
Mold Temperature	80 – 110	°C	
Back Pressure	0.2 – 0.3	MPa	
Screw Speed	30 – 60	rpm	

- (1) The information stated on Technical Datasheets should be used as indicative only for material selection purposes and not be utilized as specification or used for part or tool design.
- (2) UL Ratings shown on the technical datasheet might not cover the full range of thicknesses and colors. For details, please see the UL Yellow Card.
- (3) Measurements made from laboratory test coupon. Actual shrinkage may vary outside of range due to differences in processing conditions, equipment, part geometry and tool design. It is recommended that mold shrinkage studies be performed with surrogate or legacy tooling prior to cutting tools for new molded article.
- (4) Injection Molding parameters are only mentioned as general guidelines. These may not apply or may need adjustment in specific situations such as low shot sizes, large part molding, thin wall molding and gas-assist molding.

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