LNP™ LUBRICOMP™ COMPOUND DCL329XZ

DCL-4032 FR
REGION ASIA

DESCRIPTION

LNP LUBRICOMP* DCL329XZ is a compound based on Polycarbonate resin containing 10% Carbon Fiber, 15% PTFE. Added features of this material include: Electrically Conductive, Flame Retardant, Wear Resistant.

TYPICAL PROPERTY VALUES

Revision 20190717

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL			
Tensile Stress, break	91	MPa	ASTM D 638
Tensile Strain, break	2	%	ASTM D 638
Tensile Modulus, 50 mm/min	7170	MPa	ASTM D 638
Flexural Stress	138	MPa	ASTM D 790
Flexural Modulus	6480	MPa	ASTM D 790
Tensile Stress, break	94	MPa	ISO 527
Tensile Strain, break	1.9	%	ISO 527
Tensile Modulus, 1 mm/min	7300	MPa	ISO 527
Flexural Stress	139	MPa	ISO 178
Flexural Modulus	7300	MPa	ISO 178
IMPACT			
Izod Impact, unnotched, 23°C	315	J/m	ASTM D 4812
Izod Impact, notched, 23°C	69	J/m	ASTM D 256
Instrumented Impact Energy @ peak, 23°C	15	J	ASTM D 3763
Multiaxial Impact	2	J	ISO 6603
Izod Impact, unnotched 80*10*4 +23°C	22	kJ/m²	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	7	kJ/m²	ISO 180/1A
THERMAL			
HDT, 0.45 MPa, 3.2 mm, unannealed	143	°C	ASTM D 648
HDT, 1.82 MPa, 3.2mm, unannealed	139	°C	ASTM D 648
CTE, -40°C to 40°C, flow	2.41E-05	1/°C	ASTM E 831
CTE, -40°C to 40°C, xflow	4.19E-05	1/°C	ASTM E 831
CTE, -40°C to 40°C, flow	2.41E-05	1/°C	ISO 11359-2
CTE, -40°C to 40°C, xflow	4.19E-05	1/°C	ISO 11359-2
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	141	°C	ISO 75/Bf
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	138	°C	ISO 75/Af
Relative Temp Index, Elec (1)	80	°C	UL 746B
Relative Temp Index, Mech w/impact (1)	80	°C	UL 746B
Relative Temp Index, Mech w/o impact (1)	80	°C	UL 746B
PHYSICAL			
Density	1.365	g/cm³	ASTM D 792
Moisture Absorption, 50% RH, 24 hrs	0.09	%	ASTM D 570
Mold Shrinkage, flow, 24 hrs	0.1 – 0.2	%	ASTM D 955

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PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
Mold Shrinkage, xflow, 24 hrs	0.4 – 0.5	%	ASTM D 955
Mold Shrinkage, flow, 24 hrs	0.14 – 0.19	%	ISO 294
Mold Shrinkage, xflow, 24 hrs	0.45 – 0.52	%	ISO 294
Density	1.36	g/cm³	ISO 1183
Moisture Absorption (23°C / 50% RH)	0.14	%	ISO 62
ELECTRICAL			
Surface Resistivity	1.E+02 – 1.E+06	Ohm	ASTM D 257
FLAME CHARACTERISTICS (1)			
UL Yellow Card Link	E207780-101343855	-	-
UL Recognized, 94V-0 Flame Class Rating	1.5	mm	UL 94
INJECTION MOLDING			
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) 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.

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