LNP™ LUBRICOMP™ COMPOUND QCL349

QCL-4034 FR-1
REGION ASIA

DESCRIPTION

LNP LUBRICOMP QCL349 is a compound based on Nylon 6/10 resin containing 15% PTFE, 20% Carbon Fiber. Added features of this material include: Wear Resistant, Flame Retardant, Electrically Conductive.

TYPICAL PROPERTY VALUES

Revision 20190717

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL			
Tensile Stress, yield	168	MPa	ASTM D 638
Tensile Stress, break	158	MPa	ASTM D 638
Tensile Strain, yield	1.8	%	ASTM D 638
Tensile Strain, break	1.9	%	ASTM D 638
Tensile Modulus, 50 mm/min	16540	MPa	ASTM D 638
Flexural Stress	241	MPa	ASTM D 790
Flexural Modulus	13100	MPa	ASTM D 790
Tensile Stress, yield	162	MPa	ISO 527
Tensile Stress, break	162	MPa	ISO 527
Tensile Strain, yield	1.6	%	ISO 527
Tensile Strain, break	1.6	%	ISO 527
Tensile Modulus, 1 mm/min	15750	MPa	ISO 527
Flexural Stress	239	MPa	ISO 178
Flexural Modulus	13000	MPa	ISO 178
IMPACT			
Izod Impact, unnotched, 23°C	534	J/m	ASTM D 4812
Izod Impact, notched, 23°C	53	J/m	ASTM D 256
Instrumented Impact Energy @ peak, 23°C	4	J	ASTM D 3763
Multiaxial Impact	2	J	ISO 6603
Izod Impact, unnotched 80*10*4 +23°C	32	kJ/m²	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	5	kJ/m²	ISO 180/1A
THERMAL			
HDT, 0.45 MPa, 3.2 mm, unannealed	217	°C	ASTM D 648
HDT, 1.82 MPa, 3.2mm, unannealed	200	°C	ASTM D 648
CTE, -40°C to 40°C, flow	5.58E-05	1/°C	ASTM E 831
CTE, -40°C to 40°C, xflow	1.98E-05	1/°C	ASTM E 831
CTE, -40°C to 40°C, flow	5.7E-05	1/°C	ISO 11359-2
CTE, -40°C to 40°C, xflow	1.9E-05	1/°C	ISO 11359-2
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	218	°C	ISO 75/Bf
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	198	°C	ISO 75/Af
Relative Temp Index, Elec [1]	65	°C	UL 746B
Relative Temp Index, Mech w/impact [1]	65	°C	UL 746B
Relative Temp Index, Mech w/o impact [1]	65	°C	UL 746B

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PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
PHYSICAL			
Density	1.52	g/cm³	ASTM D 792
Moisture Absorption, 50% RH, 24 hrs	0.1	%	ASTM D 570
Mold Shrinkage, flow, 24 hrs	0.1	%	ASTM D 955
Mold Shrinkage, xflow, 24 hrs	0.8	%	ASTM D 955
Mold Shrinkage, flow, 24 hrs	0.11	%	ISO 294
Mold Shrinkage, xflow, 24 hrs	0.78	%	ISO 294
Wear Factor Washer	444	10^-10 in^5-min/ft-lb-hr	ASTM D 3702 Modified: Manual
Dynamic COF	0.34	-	ASTM D 3702 Modified: Manual
Static COF	0.28	-	ASTM D 3702 Modified: Manual
Density	1.52	g/cm³	ISO 1183
FLAME CHARACTERISTICS (1)			
UL Yellow Card Link	E207780-103093570	-	-
UL Recognized, 94V-0 Flame Class Rating	1.5	mm	UL 94

(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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