

LNPT[™] LUBRICOMP[™] COMPOUND DL0049EF

DL-4040 FR

DESCRIPTION

LNP LUBRICOMP DL0049EF compound is based on Polycarbonate (PC) resin containing 20% PTFE, Flame Retardant. Added features of this grade include: Wear Resistant, Flame Retardant, Good Flow.

GENERAL INFORMATION	
Features	Flame Retardant, Good Processability, Wear resistant
Fillers	Unreinforced, 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, yield	47	MPa	ASTM D638
Tensile Stress, break	40	MPa	ASTM D638
Tensile Strain, yield	5.2	%	ASTM D638
Tensile Strain, break	23.2	%	ASTM D638
Tensile Modulus, 50 mm/min	2060	MPa	ASTM D638
Flexural Modulus	2060	MPa	ASTM D790
Tensile Stress, yield	49	MPa	ISO 527
Tensile Stress, break	43	MPa	ISO 527
Tensile Strain, yield	5.4	%	ISO 527
Tensile Strain, break	26.1	%	ISO 527
Tensile Modulus, 1 mm/min	2090	MPa	ISO 527
Flexural Stress	70	MPa	ISO 178
Flexural Modulus	2200	MPa	ISO 178
IMPACT ⁽¹⁾			
Izod Impact, unnotched, 23°C	1569	J/m	ASTM D4812
Izod Impact, notched, 23°C	122	J/m	ASTM D256
Instrumented Dart Impact Energy @ peak, 23°C	32	J	ASTM D3763
Multiaxial Impact	26	J	ISO 6603
Izod Impact, unnotched 80*10*4 +23°C	118	kJ/m ²	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	10	kJ/m ²	ISO 180/1A

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
THERMAL ⁽¹⁾			
HDT, 0.45 MPa, 3.2 mm, unannealed	137	°C	ASTM D648
HDT, 1.82 MPa, 3.2mm, unannealed	123	°C	ASTM D648
CTE, -40°C to 40°C, flow	7.56E-05	1/°C	ASTM E831
CTE, -40°C to 40°C, xflow	7.92E-05	1/°C	ASTM E831
CTE, -40°C to 40°C, flow	7.6E-05	1/°C	ISO 11359-2
CTE, -40°C to 40°C, xflow	7.8E-05	1/°C	ISO 11359-2
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	136	°C	ISO 75/Bf
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	126	°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⁾			
Density	1.35	g/cm ³	ASTM D792
Mold Shrinkage, flow, 24 hrs ⁽³⁾	0.5 – 0.7	%	ASTM D955
Mold Shrinkage, xflow, 24 hrs ⁽³⁾	0.8 – 1	%	ASTM D955
Mold Shrinkage, flow, 24 hrs ⁽³⁾	0.61	%	ISO 294
Mold Shrinkage, xflow, 24 hrs ⁽³⁾	0.85	%	ISO 294
Wear Factor Washer	8	10 ⁻¹⁰ in ⁴ 5-min/ft-lb-hr	ASTM D3702 Modified: Manual
Dynamic COF	0.32	-	ASTM D3702 Modified: Manual
Static COF	0.19	-	ASTM D3702 Modified: Manual
Density	1.35	g/cm ³	ISO 1183
FLAME CHARACTERISTICS ⁽²⁾			
UL Yellow Card Link	E121562-101284665	-	-
UL Recognized, 94V-0 Flame Class Rating	≥3	mm	UL 94
UL Recognized, 94V-1 Flame Class Rating	≥1.5	mm	UL 94
INJECTION MOLDING ⁽⁴⁾			
Drying Temperature	120	°C	
Drying Time	4	Hrs	
Maximum Moisture Content	0.02	%	
Melt Temperature	300 – 315	°C	
Front - Zone 3 Temperature	310 – 320	°C	
Middle - Zone 2 Temperature	305 – 315	°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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