LNP™ LUBRICOMP™ COMPOUND DL0039EF

DL-4030 FR

DESCRIPTION

LNP LUBRICOMP DL-0039EF compound is based on Polycarbonate (PC) resin containing 15% PTFE. Added features of this grade include: Flame Retardant, Wear Resistant.

GENERAL INFORMATION	
Features	Flame Retardant, 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, yld, Type I, 5 mm/min	53	MPa	ASTM D638
Tensile Stress, brk, Type I, 5 mm/min	44	MPa	ASTM D638
Tensile Strain, yld, Type I, 5 mm/min	5.4	%	ASTM D638
Tensile Strain, brk, Type I, 5 mm/min	22	%	ASTM D638
Tensile Modulus, 5 mm/min	2210	MPa	ASTM D638
Flexural Modulus, 1.3 mm/min, 50 mm span	2240	MPa	ASTM D790
Tensile Stress, yield, 5 mm/min	52	MPa	ISO 527
Tensile Stress, break, 5 mm/min	44	MPa	ISO 527
Tensile Strain, yield, 5 mm/min	5.5	%	ISO 527
Tensile Strain, break, 5 mm/min	27	%	ISO 527
Tensile Modulus, 1 mm/min	2090	MPa	ISO 527
Flexural Stress	77	MPa	ISO 178
Flexural Modulus, 2 mm/min	2090	MPa	ISO 178
IMPACT [1]			
Multiaxial Impact	35	J	ISO 6603
Instrumented Dart Impact Total Energy, 23°C	36	J	ASTM D3763
Izod Impact, unnotched 80*10*4 +23°C	200	kJ/m²	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	10	kJ/m²	ISO 180/1A
THERMAL [1]			
HDT, 0.45 MPa, 3.2 mm, unannealed	137	°C	ASTM D648

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
HDT, 1.82 MPa, 3.2mm, unannealed	126	°C	ASTM D648
CTE, -30°C to 30°C, flow	7.5E-05	1/°C	ASTM D696
CTE, -30°C to 30°C, xflow	7.6E-05	1/°C	ASTM D696
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	137	°C	ISO 75/Bf
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	125	°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)			
Specific Gravity	1.31	-	ASTM D792
Density	1.3	g/cm³	ASTM D792
Moisture Absorption, (23°C/50% RH/24 hrs)	0.11	%	ASTM D570
Mold Shrinkage, flow, 24 hrs (3)	0.1 – 0.3	%	ASTM D955
Mold Shrinkage, xflow, 24 hrs (3)	0.6 – 0.8	%	ASTM D955
Wear Factor Washer	6	10^-10 in^5-min/ft-lb-hr	ASTM D3702 Modified: Manual
Wear Factor Ring	0	10^-10 in^5-min/ft-lb-hr	ASTM D3702 Modified: Manual
Dynamic COF	0.35	-	ASTM D3702 Modified: Manual
Static COF	0.18	-	ASTM D3702 Modified: Manual
Moisture Absorption (23°C / 50% RH)	0.18	%	ISO 62
FLAME CHARACTERISTICS (2)			
UL Yellow Card Link	E207780-103786784	-	-
UL Recognized, 94V-1 Flame Class Rating	1.2	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.

DISCLAIMER