LNP™ LUBRICOMP™ COMPOUND DBL349E

DBL-4034 EM FR

DESCRIPTION

LNP LUBRICOMP DBL349E compound is based on Polycarbonate (PC) resin containing 20% glass bead and 15% PTFE. Added features of this grade include: Wear Resistant, Flame Retardant

GENERAL INFORMATION	
Features	Flame Retardant, Wear resistant, Dimensional stability
Fillers	Glass Bead, 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	41	MPa	ASTM D638
Tensile Stress, break	37	MPa	ASTM D638
Tensile Strain, yield	2.9	%	ASTM D638
Tensile Strain, break	9	%	ASTM D638
Tensile Modulus, 50 mm/min	3440	MPa	ASTM D638
Flexural Modulus	2750	MPa	ASTM D790
Tensile Stress, yield	41	MPa	ISO 527
Tensile Stress, break	38	MPa	ISO 527
Tensile Strain, yield	2.9	%	ISO 527
Tensile Strain, break	7.6	%	ISO 527
Tensile Modulus, 1 mm/min	2970	MPa	ISO 527
Flexural Stress	78	MPa	ISO 178
Flexural Modulus	2900	MPa	ISO 178
IMPACT [1]			
Izod Impact, unnotched, 23°C	464	J/m	ASTM D4812
Izod Impact, notched, 23°C	58	J/m	ASTM D256
Instrumented Dart Impact Energy @ peak, 23°C	15	J	ASTM D3763
Multiaxial Impact	4	J	ISO 6603
Izod Impact, unnotched 80*10*4 +23°C	30	kJ/m²	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	5	kJ/m²	ISO 180/1A

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
THERMAL [1]			
HDT, 0.45 MPa, 3.2 mm, unannealed	141	°C	ASTM D648
HDT, 1.82 MPa, 3.2mm, unannealed	128	°C	ASTM D648
CTE, -40°C to 40°C, flow	6.48E-05	1/°C	ASTM E831
CTE, -40°C to 40°C, xflow	6.48E-05	1/°C	ASTM E831
CTE, -40°C to 40°C, flow	6.5E-05	1/°C	ISO 11359-2
CTE, -40°C to 40°C, xflow	6.4E-05	1/°C	ISO 11359-2
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	140	°C	ISO 75/Bf
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	129	°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	1.48	g/cm³	ASTM D792
Mold Shrinkage, flow, 24 hrs [3]	0.4 – 0.6	%	ASTM D955
Mold Shrinkage, xflow, 24 hrs [3]	0.6 – 0.8	%	ASTM D955
Mold Shrinkage, flow, 24 hrs [3]	0.54	%	ISO 294
Mold Shrinkage, xflow, 24 hrs [3]	0.69	%	ISO 294
Wear Factor Washer	90	10^-10 in^5-min/ft-lb-hr	ASTM D3702 Modified: Manual
Dynamic COF	0.52	-	ASTM D3702 Modified: Manual
Static COF	0.7	-	ASTM D3702 Modified: Manual
Density	1.48	g/cm³	ISO 1183
FLAME CHARACTERISTICS [2]			
UL Yellow Card Link	E121562-101284257	-	-
UL Recognized, 94V-0 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	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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