LNP™ LUBRICOMP™ COMPOUND DFL28

DFL-4028

DESCRIPTION

LNP LUBRICOMP DFL28 compound is based on Polycarbonate (PC) resin containing 40% glass fiber and 10% PTFE. Added features of this grade include: Wear Resistant.

GENERAL INFORMATION	
Features	Wear resistant, High stiffness/Strength
Fillers	Glass Fiber, 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	145	MPa	ISO 527
Tensile Stress, break	145	MPa	ISO 527
Tensile Strain, yield	2.1	%	ISO 527
Tensile Strain, break	2.1	%	ISO 527
Tensile Modulus, 1 mm/min	12930	MPa	ISO 527
Flexural Stress	216	MPa	ISO 178
Flexural Modulus	11800	MPa	ISO 178
Tensile Stress, yield	148	MPa	ASTM D638
Tensile Stress, break	148	MPa	ASTM D638
Tensile Strain, yield	2.2	%	ASTM D638
Tensile Strain, break	2.2	%	ASTM D638
Tensile Modulus, 50 mm/min	13780	MPa	ASTM D638
Flexural Stress	206	MPa	ASTM D790
Flexural Modulus	11720	MPa	ASTM D790
IMPACT [1]			
Izod Impact, notched 80*10*4 +23°C	16	kJ/m²	ISO 180/1A
Izod Impact, unnotched 80*10*4 +23°C	57	kJ/m²	ISO 180/1U
Multiaxial Impact	5	J	ISO 6603
Izod Impact, notched, 23°C	160	J/m	ASTM D256
Izod Impact, unnotched, 23°C	891	J/m	ASTM D4812

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
Instrumented Dart Impact Energy @ peak, 23°C	22	J	ASTM D3763
THERMAL [1]			
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	142	°C	ISO 75/Af
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	146	°C	ISO 75/Bf
CTE, -40°C to 40°C, flow	2.70E-05	1/°C	ISO 11359-2
CTE, -40°C to 40°C, xflow	3.30E-05	1/°C	ISO 11359-2
HDT, 0.45 MPa, 3.2 mm, unannealed	145	°C	ASTM D648
HDT, 1.82 MPa, 3.2mm, unannealed	140	°C	ASTM D648
CTE, -40°C to 40°C, flow	2.70E-05	1/°C	ASTM E831
CTE, -40°C to 40°C, xflow	3.24E-05	1/°C	ASTM E831
PHYSICAL [1]			
Density	1.61	g/cm³	ISO 1183
Mold Shrinkage, flow, 24 hrs [2]	0.21	%	ISO 294
Mold Shrinkage, xflow, 24 hrs [2]	0.51	%	ISO 294
Density	1.61	g/cm³	ASTM D792
Mold Shrinkage, flow, 24 hrs [2]	0.1 – 0.3	%	ASTM D955
Mold Shrinkage, xflow, 24 hrs [2]	0.4 – 0.6	%	ASTM D955
Wear Factor Washer	129	10^-10 in^5-min/ft-lb-hr	ASTM D3702 Modified: Manual
Dynamic COF	0.52	-	ASTM D3702 Modified: Manual
Static COF	0.52	-	ASTM D3702 Modified: Manual
FLAME CHARACTERISTICS [3]			
UL Yellow Card Link	E121562-101344609	-	-
UL Yellow Card Link 2	E207780-101344587	-	-
UL Recognized, 94V-1 Flame Class Rating	≥3	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) 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.

(3) 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.

(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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