LNP™ LUBRICOMP™ COMPOUND DFL369XF

DFL-4036 FR

DESCRIPTION

LNP LUBRICOMP DFL369XF compound is based on Polycarbonate (PC) resin containing 30% glass fiber, 15% PTFE. Added features of this grade include: Wear Resistant, Flame Retardant.

GENERAL INFORMATION	
Features	Flame Retardant, 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	115	MPa	ISO 527
Tensile Stress, break	115	MPa	ISO 527
Tensile Strain, yield	2.1	%	ISO 527
Tensile Strain, break	2.1	%	ISO 527
Tensile Modulus, 1 mm/min	9930	MPa	ISO 527
Flexural Stress	173	MPa	ISO 178
Flexural Modulus	9200	MPa	ISO 178
Tensile Stress, yield	116	MPa	ASTM D638
Tensile Stress, break	112	MPa	ASTM D638
Tensile Strain, yield	2.2	%	ASTM D638
Tensile Strain, break	2.3	%	ASTM D638
Tensile Modulus, 50 mm/min	10340	MPa	ASTM D638
Flexural Stress	179	MPa	ASTM D790
Flexural Modulus	8960	MPa	ASTM D790
IMPACT [1]			
Izod Impact, notched 80*10*4 +23°C	11	kJ/m²	ISO 180/1A
Izod Impact, unnotched 80*10*4 +23°C	39	kJ/m²	ISO 180/1U
Multiaxial Impact	4	J	ISO 6603
Izod Impact, notched, 23°C	662	J/m	ASTM D256
Izod Impact, unnotched, 23°C	122	J/m	ASTM D4812

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
Instrumented Dart Impact Energy @ peak, 23°C	19	J	ASTM D3763
THERMAL [1]			
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	135	°C	ISO 75/Af
CTE, -40°C to 40°C, flow	2.20E-05	1/°C	ISO 11359-2
CTE, -40°C to 40°C, xflow	5.40E-05	1/°C	ISO 11359-2
HDT, 0.45 MPa, 3.2 mm, unannealed	138	°C	ASTM D648
HDT, 1.82 MPa, 3.2mm, unannealed	135	°C	ASTM D648
CTE, -40°C to 40°C, flow	2.16E-05	1/°C	ASTM E831
CTE, -40°C to 40°C, xflow	5.40E-05	1/°C	ASTM E831
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]			
Mold Shrinkage, flow, 24 hrs [3]	0.21	%	ISO 294
Mold Shrinkage, xflow, 24 hrs [3]	0.4	%	ISO 294
Density	1.6	g/cm³	ASTM D792
Mold Shrinkage, flow, 24 hrs [3]	0.1 – 0.3	%	ASTM D955
Mold Shrinkage, xflow, 24 hrs [3]	0.3 – 0.5	%	ASTM D955
Wear Factor Washer	28	10^-10 in^5-min/ft-lb-hr	ASTM D3702 Modified: Manual
Dynamic COF	0.51	-	ASTM D3702 Modified: Manual
Static COF	0.52	-	ASTM D3702 Modified: Manual
Density	1.6	g/cm³	ISO 1183
FLAME CHARACTERISTICS [2]			
UL Yellow Card Link	E121562-101284688	-	-
UL Yellow Card Link 2	E207780-101284680	-	-
UL Recognized, 94V-0 Flame Class Rating	≥1.5	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	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.

DISCLAIMER

Any sale by SABIC, its subsidiaries and affiliates (each a "seller"), is made exclusively under seller's standard conditions of sale (available upon request) unless agreed otherwise in writing and signed on behalf of the seller. While the information contained herein is given in good faith, SELLER MAKES NO WARRANTY, EXPRESS OR IMPLIED, INCLUDING MERCHANTABILITY AND NONINFRINGEMENT OF INTELLECTUAL PROPERTY, NOR ASSUMES ANY LIABILITY, DIRECT OR INDIRECT, WITH RESPECT TO THE PERFORMANCE, SUITABILITY OR FITNESS FOR INTENDED USE OR PURPOSE OF THESE PRODUCTS IN ANY APPLICATION. Each customer must determine the suitability of seller materials for the customer's particular use through appropriate testing and analysis. No statement by seller concerning a possible use of any product, service or design is intended, or should be construed, to grant any license under any patent or other intellectual property right.