LNP™ LUBRICOMP™ COMPOUND WFL369

WFL-4036 FR-1

DESCRIPTION

LNP LUBRICOMP WFL369 compound is based on Polybutylene Terephthalate (PBT) 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	Polybutylene Terephthalate (PBT)
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 20230607

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL [1]			
Tensile Modulus, 5 mm/min	12410	MPa	ASTM D638
Tensile Stress, yield	105	MPa	ASTM D638
Tensile Stress, break	102	MPa	ASTM D638
Tensile Strain, yield	2.1	%	ASTM D638
Tensile Strain, break	2.1	%	ASTM D638
Flexural Stress	158	MPa	ASTM D790
Flexural Modulus	10340	MPa	ASTM D790
Tensile Modulus, 1 mm/min	11000	MPa	ISO 527
Tensile Stress, break, 5 mm/min	100	MPa	ISO 527
Tensile Strain, break, 5 mm/min	1.7	%	ISO 527
Flexural Modulus, 2 mm/min	8900	MPa	ISO 178
Flexural Strength, 2 mm/min	155	MPa	ISO 178
IMPACT [1]			
Izod Impact, unnotched, 23°C	667	J/m	ASTM D4812
Izod Impact, notched, 23°C	58	J/m	ASTM D256
Instrumented Dart Impact Energy @ peak, 23°C	6	J	ASTM D3763
Multiaxial Impact	2	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
THERMAL [1]			

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
HDT, 0.45 MPa, 3.2 mm, unannealed	221	°C	ASTM D648
HDT, 1.82 MPa, 3.2mm, unannealed	207	°C	ASTM D648
CTE, -40°C to 40°C, flow	2.9E-05	1/°C	ASTM E831
CTE, -40°C to 40°C, xflow	7.E-05	1/°C	ASTM E831
CTE, -40°C to 40°C, flow	2.9E-05	1/°C	ISO 11359-2
CTE, -40°C to 40°C, xflow	7.E-05	1/°C	ISO 11359-2
CTE, 23°C to 60°C, flow	2.9E-05	1/°C	ISO 11359-2
CTE, 23°C to 60°C, xflow	8.2E-05	1/°C	ISO 11359-2
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	221	°C	ISO 75/Bf
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	202	°C	ISO 75/Af
Relative Temp Index, Elec [2]	75	°C	UL 746B
Relative Temp Index, Mech w/impact [2]	75	°C	UL 746B
Relative Temp Index, Mech w/o impact [2]	75	°C	UL 746B
PHYSICAL [1]			
Density	1.78	g/cm³	ASTM D792
Mold Shrinkage, flow, 24 hrs [3]	0.4 – 0.6	%	ASTM D955
Mold Shrinkage, xflow, 24 hrs [3]	1.4 – 1.6	%	ASTM D955
Mold Shrinkage, flow, 24 hrs [3]	0.51	%	ISO 294
Mold Shrinkage, xflow, 24 hrs [3]	1.5	%	ISO 294
Wear Factor Washer	25	10^-10 in^5-min/ft-lb-hr	ASTM D3702 Modified: Manual
Dynamic COF	0.53	-	ASTM D3702 Modified: Manual
Static COF	0.41	-	ASTM D3702 Modified: Manual
Density	1.78	g/cm³	ISO 1183
ELECTRICAL [1]			
Comparative Tracking Index [4]	275	V	IEC 60112
FLAME CHARACTERISTICS [2]			
UL Yellow Card Link	E121562-101345287	-	-
UL Yellow Card Link 2	E207780-101345254	-	-
UL Yellow Card Link 3	E207780-103093706	-	-
UL Yellow Card Link 4	E45329-101282615	-	-
UL Recognized, 94V-0 Flame Class Rating	1.5	mm	UL 94
INJECTION MOLDING [5]			
Drying Temperature	120	°C	
Drying Time	4	Hrs	
Maximum Moisture Content	0.05	%	
Melt Temperature	245 – 260	°C	
Front - Zone 3 Temperature	250 – 260	°C	
Middle - Zone 2 Temperature	245 – 255	°C	
Rear - Zone 1 Temperature	230 – 245	°C	
Mold Temperature	80 – 100	°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) internally tested by Sabic
(5) 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.

MORE INFORMATION

For curve data and CAE cards, please visit and register at https://materialfinder.sabic-specialties.com

DISCLAIMER