LNP™ LUBRILOY™ COMPOUND DF2041

DF-20 FR ECO

DESCRIPTION

LNP LUBRILOY DF2041 compound is based on Polycarbonate (PC) resin containing 20% glass fiber and a proprietary lubricant. Added features of this grade include: Flame Retardant, Wear Resistant.

GENERAL INFORMATION	
Features	Flame Retardant, Wear resistant, Non Cl/Br flame retardant
Fillers	Glass Fiber
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, break	101	MPa	ASTM D638
Tensile Strain, break	2.2	%	ASTM D638
Tensile Modulus, 50 mm/min	6680	MPa	ASTM D638
Flexural Stress	153	MPa	ASTM D790
Flexural Modulus	6370	MPa	ASTM D790
Tensile Stress, break	100	MPa	ISO 527
Tensile Strain, break	2	%	ISO 527
Tensile Modulus, 1 mm/min	6830	MPa	ISO 527
Flexural Stress	149	MPa	ISO 178
Flexural Modulus	6270	MPa	ISO 178
IMPACT [1]			
Izod Impact, unnotched, 23°C	603	J/m	ASTM D4812
Izod Impact, notched, 23°C	154	J/m	ASTM D256
Instrumented Dart Impact Energy @ peak, 23°C	11	J	ASTM D3763
Multiaxial Impact	3	J	ISO 6603
Izod Impact, unnotched 80*10*4 +23°C	36	kJ/m²	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	9	kJ/m²	ISO 180/1A
THERMAL [1]			
HDT, 1.82 MPa, 3.2mm, unannealed	92	°C	ASTM D648
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	102	°C	ISO 75/Af

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
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	1.33	g/cm³	ASTM D792
Moisture Absorption, (23°C/50% RH/24 hrs)	0.06	%	ASTM D570
Mold Shrinkage, flow, 24 hrs [3]	0.2	%	ASTM D955
Mold Shrinkage, xflow, 24 hrs [3]	0.4	%	ASTM D955
Mold Shrinkage, flow, 24 hrs [3]	0.18	%	ISO 294
Mold Shrinkage, xflow, 24 hrs [3]	0.39	%	ISO 294
Wear Factor Washer	57	10^-10 in^5-min/ft-lb-hr	ASTM D3702 Modified: Manual
Dynamic COF	0.43	-	ASTM D3702 Modified: Manual
Static COF	0.36	-	ASTM D3702 Modified: Manual
Moisture Absorption (23°C / 50% RH)	0.11	%	ISO 62
FLAME CHARACTERISTICS [2]			
UL Yellow Card Link	E121562-101345270	-	-
UL Yellow Card Link 2	E207780-101345230	-	-
UL Recognized, 94V-0 Flame Class Rating	≥3	mm	UL 94
UL Recognized, 94V-1 Flame Class Rating	≥0.8	mm	UL 94
UL Recognized, 94V-2 Flame Class Rating	≥0.4	mm	UL 94
INJECTION MOLDING [4]			
Drying Temperature	80	°C	
Drying Time	4 – 6	Hrs	
Maximum Moisture Content	0.02	%	
Melt Temperature	255 – 290	°C	
Front - Zone 3 Temperature	260 – 270	°C	
Middle - Zone 2 Temperature	255 – 265	°C	
Rear - Zone 1 Temperature	250 – 260	°C	
Mold Temperature	40 – 65	°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