LNP™ LUBRICOMP™ COMPOUND DL003

DL-4030

DESCRIPTION

LNP LUBRICOMP DL003 is a compound based on Polycarbonate resin containing 15% PTFE. Added features of this material include: Wear Resistant.

INDUSTRY	SUB INDUSTRY
Automotive	Automotive Exteriors
Building and Construction	Water Management
Consumer	Home Decoration
Electrical and Electronics	Electrical Devices and Displays, Electrical Components and Infrastructure
Healthcare	Pharmaceutical
Industrial	Textile

TYPICAL PROPERTY VALUES

Revision 20191223

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL			
Tensile Modulus, 50 mm/min	2150	MPa	ASTM D 638
Tensile Strain, brk, Type I, 50 mm/min	37.6	%	ASTM D 638
Tensile Strain, yld, Type I, 50 mm/min	6.1	%	ASTM D 638
Tensile Stress, yld, Type I, 50 mm/min	51	MPa	ASTM D 638
Flexural Modulus, 1.3 mm/min, 50 mm span	2190	MPa	ASTM D 790
Flexural Strength, 1.3 mm/min, 50 mm span	82	MPa	ASTM D 790
Flexural Modulus, 2 mm/min	2100	MPa	ISO 178
Flexural Strength, 2 mm/min	81	MPa	ISO 178
Tensile Modulus, 1 mm/min	2200	MPa	ISO 527
Tensile Strain, break, 50 mm/min	20	%	ISO 527
Tensile Strain, yield, 50 mm/min	5.1	%	ISO 527
Tensile Stress, yield, 50 mm/min	54	MPa	ISO 527
IMPACT			
Izod Impact, notched, 23°C	280	J/m	ASTM D 256
Izod Impact, unnotched, 23°C	NB	J/m	ASTM D 4812
Instrumented Impact Energy @ peak, 23°C	30	J	ASTM D 3763
Izod Impact, notched 80*10*4 +23°C	20	kJ/m²	ISO 180/1A
Izod Impact, unnotched 80*10*4 +23°C	140	kJ/m²	ISO 180/1U
Charpy 23°C, V-notch Edgew 80*10*4 sp=62mm	22	kJ/m²	ISO 179/1eA
Charpy 23°C, Unnotch Edgew 80*10*4 sp=62mm	180	kJ/m²	ISO 179/1eU
Multiaxial Impact	34	J	ISO 6603
THERMAL			
HDT, 1.82 MPa, 3.2mm, unannealed	127	°C	ASTM D 648
CTE, 23°C to 60°C, flow	7.6E-05	1/°C	ISO 11359-2
CTE, 23°C to 60°C, xflow	9.8E-05	1/°C	ISO 11359-2
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	128	°C	ISO 75/Af

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PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	138	°C	ISO 75/Bf
Vicat Softening Temp, Rate B/50	144	°C	ASTM D 1525
Vicat Softening Temp, Rate B/120	144	°C	ISO 306
Vicat Softening Temp, Rate B/50	144	°C	ISO 306
PHYSICAL			
Density	1.28	g/cm³	ASTM D 792
Moisture Absorption, 50% RH, 24 hrs	0.05 – 0.2	%	ASTM D 570
Water Absorption, 24 hours	0.2 – 0.3	%	ASTM D 570
Melt Flow Rate, 300°C/1.2 kgf	6.2	g/10 min	ASTM D 1238
Wear Factor Washer	60	10^-10 in^5-min/ft-lb-hr	ASTM D 3702 Modified: Manual
Dynamic COF	0.18	-	ASTM D 3702 Modified: Manual
Static COF	0.26	-	ASTM D 3702 Modified: Manual
Density	1.28	g/cm³	ISO 1183
Moisture Absorption (23°C / 50% RH)	0.05 – 0.2	%	ISO 62
Water Absorption, 23°C/24hrs	0.2 – 0.3	%	ISO 62-1
Melt Volume Rate, MVR at 300°C/1.2 kg	5.8	cm³/10 min	ISO 1133
Mold Shrinkage, flow	0.7 – 0.9	%	SABIC method
Mold Shrinkage, xflow	0.7 – 0.9	%	SABIC method
FLAME CHARACTERISTICS (1)			
UL Yellow Card Link 2	E207780-101343861	-	-
UL Yellow Card Link 3	E45329-101344454	-	-
UL Yellow Card Link	E121562-101282870	-	-
UL Recognized, 94HB Flame Class Rating	≥1.5	mm	UL 94
UL Recognized, 94V-1 Flame Class Rating	≥3	mm	UL 94
INJECTION MOLDING			
Drying Temperature	120	°C	
Drying Time	4	hrs	
Maximum Moisture Content	0.02	%	
Melt Temperature	300 – 315	°C	
Rear - Zone 1 Temperature	295 – 305	°C	
Middle - Zone 2 Temperature	305 – 315	°C	
Front - Zone 3 Temperature	310 – 320	°C	
Mold Temperature	80 – 110	°C	
Back Pressure	0.2 – 0.3	MPa	
Screw Speed	30 – 60	rpm	

(1) 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.

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