LNP™ LUBRICOMP™ COMPOUND WI001

WL-4410
REGION AMERICAS

DESCRIPTION

LNP LUBRICOMP WI001 compound is based on Polybutylene Terephthalate (PBT) resin containing 2% silicone. Added features of this grade include: Wear Resistant.

GENERAL INFORMATION	
Features	Wear resistant, No PFAS intentionally added
Fillers	Unreinforced, Silicone
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 20231109

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL [1]			
Tensile Stress, yld, Type I, 5 mm/min	50	MPa	ASTM D638
Tensile Stress, brk, Type I, 5 mm/min	46	MPa	ASTM D638
Tensile Strain, yld, Type I, 5 mm/min	2.8	%	ASTM D638
Tensile Strain, brk, Type I, 5 mm/min	51	%	ASTM D638
Tensile Modulus, 5 mm/min	2720	MPa	ASTM D638
Flexural Stress, yld, 1.3 mm/min, 50 mm span	88	MPa	ASTM D790
Flexural Modulus, 1.3 mm/min, 50 mm span	2620	MPa	ASTM D790
Tensile Stress, yield, 5 mm/min	53	MPa	ISO 527
Tensile Stress, break, 5 mm/min	45	MPa	ISO 527
Tensile Strain, yield, 5 mm/min	3	%	ISO 527
Tensile Strain, break, 5 mm/min	32	%	ISO 527
Tensile Modulus, 1 mm/min	2540	MPa	ISO 527
Flexural Stress	81	MPa	ISO 178
Flexural Modulus, 2 mm/min	2520	MPa	ISO 178
IMPACT [1]			
Izod Impact, unnotched, 23°C	935	J/m	ASTM D4812
Izod Impact, notched, 23°C	5	J/m	ASTM D256
Multiaxial Impact	8	J	ISO 6603
Instrumented Dart Impact Total Energy, 23°C	10	J	ASTM D3763

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
Izod Impact, unnotched 80*10*4 +23°C	62	kJ/m²	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	47	kJ/m²	ISO 180/1A
THERMAL [1]			
HDT, 0.45 MPa, 3.2 mm, unannealed	202	°C	ASTM D648
HDT, 1.82 MPa, 3.2mm, unannealed	61	°C	ASTM D648
CTE, -30°C to 30°C, flow	8.5E-05	1/°C	ASTM D696
CTE, -30°C to 30°C, xflow	8.8E-05	1/°C	ASTM D696
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	156	°C	ISO 75/Bf
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	56	°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]			
Specific Gravity	1.3	-	ASTM D792
Density	1.3	g/cm³	ASTM D792
Moisture Absorption, (23°C/50% RH/24 hrs)	0.06	%	ASTM D570
Mold Shrinkage, flow, 24 hrs [3]	2 – 4	%	ASTM D955
Mold Shrinkage, xflow, 24 hrs [3]	2 – 4	%	ASTM D955
Wear Factor Washer	136	10^-10 in^5-min/ft-lb-hr	ASTM D3702 Modified: Manual
Wear Factor Ring	0	10^-10 in^5-min/ft-lb-hr	ASTM D3702 Modified: Manual
Dynamic COF	0.31	-	ASTM D3702 Modified: Manual
Static COF	0.19	-	ASTM D3702 Modified: Manual
Moisture Absorption (23°C / 50% RH)	0.09	%	ISO 62
FLAME CHARACTERISTICS [2]			
UL Yellow Card Link	E121562-101284325	-	-
UL Recognized, 94HB Flame Class Rating	1.5	mm	UL 94
INJECTION MOLDING [4]			
Drying Temperature	120	°C	
Drying Time	4	Hrs	
Maximum Moisture Content	0.05	%	
Melt Temperature	240 – 265	°C	
Front - Zone 3 Temperature	260 – 270	°C	
Middle - Zone 2 Temperature	245 – 255	°C	
Rear - Zone 1 Temperature	220 – 230	°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) 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.

ADDITIONAL PRODUCT NOTES

No PFAS intentionally added: The grade listed in this document does not contain PFAS intentionally added during Seller's manufacturing process and is not expected to contain unintentional PFAS impurities. Each user is responsible for evaluating the presence of unintentional PFAS impurities.

DISCLAIMER