LNP™ LUBRICOMP™ COMPOUND YP003

YL-4530
REGION AMERICAS

DESCRIPTION

LNP LUBRICOMP YP003 compound is based on Polyester Elastomer resin containing 15% PTFE/silicone. Added features of this grade include: Wear Resistant.

GENERAL INFORMATION	
Features	Wear resistant
Fillers	Unreinforced, PTFE/Silicone
Polymer Types	Thermoplastic Polyester Elastomer (TPEE)
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	13	MPa	ASTM D638
Tensile Strain, yield	53.5	%	ASTM D638
Tensile Modulus, 50 mm/min	200	MPa	ASTM D638
Flexural Modulus	260	MPa	ASTM D790
Tensile Stress, yield	14	MPa	ISO 527
Tensile Strain, yield	39.9	%	ISO 527
Tensile Modulus, 1 mm/min	200	MPa	ISO 527
Flexural Modulus	270	MPa	ISO 178
IMPACT [1]			
Izod Impact, unnotched, 23°C	NB	J/m	ASTM D4812
Izod Impact, notched, 23°C	240	J/m	ASTM D256
Instrumented Dart Impact Energy @ peak, 23°C	27	J	ASTM D3763
Multiaxial Impact	26	J	ISO 6603
Izod Impact, unnotched 80*10*4 +23°C	NB	kJ/m²	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	30	kJ/m²	ISO 180/1A
THERMAL [1]			
HDT, 1.82 MPa, 3.2mm, unannealed	47	°C	ASTM D648
CTE, -40°C to 40°C, flow	1.11E-04	1/°C	ASTM E831
CTE, -40°C to 40°C, xflow	1.84E-04	1/°C	ASTM E831

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
CTE, -40°C to 40°C, flow	1.11E-04	1/°C	ISO 11359-2
CTE, -40°C to 40°C, xflow	1.84E-04	1/°C	ISO 11359-2
PHYSICAL [1]			
Density	1.27	g/cm³	ASTM D792
Moisture Absorption, (23°C/50% RH/24 hrs)	0.37	%	ASTM D570
Mold Shrinkage, flow, 24 hrs [2]	2.1	%	ASTM D955
Mold Shrinkage, xflow, 24 hrs [2]	2	%	ASTM D955
Mold Shrinkage, flow, 24 hrs [2]	2.13	%	ISO 294
Mold Shrinkage, xflow, 24 hrs [2]	2.05	%	ISO 294
Wear Factor Washer	5	10^-10 in^5-min/ft-lb-hr	ASTM D3702 Modified: Manual
Dynamic COF	0.47	-	ASTM D3702 Modified: Manual
Static COF	0.45	-	ASTM D3702 Modified: Manual
Density	1.26	g/cm³	ISO 1183
Moisture Absorption (23°C / 50% RH)	0.5	%	ISO 62
FLAME CHARACTERISTICS [3]			
UL Yellow Card Link	E121562-101344714	-	-
UL Recognized, 94HB Flame Class Rating	1.5	mm	UL 94
INJECTION MOLDING [4]			
Drying Temperature	80	°C	
Drying Time	4	Hrs	
Maximum Moisture Content	0.1	%	
Melt Temperature	215 – 240	°C	
Front - Zone 3 Temperature	225 – 240	°C	
Middle - Zone 2 Temperature	205 – 215	°C	
Rear - Zone 1 Temperature	180 – 195	°C	
Mold Temperature	25 – 55	°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) 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.

(3) 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.

(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