

LNPTTM LUBRICOMPTM COMPOUND WL002

WL-4020

DESCRIPTION

LNP LUBRICOMP WL002 compound is based on Polybutylene Terephthalate (PBT) resin containing 10% PTFE. Added features of this grade include: Wear Resistant.

GENERAL INFORMATION

Features	Wear resistant
Fillers	Unreinforced, PTFE
Polymer Types	Polybutylene Terephthalate (PBT)
Processing Techniques	Injection Molding

INDUSTRY

Building and Construction
Consumer
Electrical and Electronics
Industrial

SUB INDUSTRY

Building Component
Sport/Leisure, Personal Accessory, Home Appliances, Commercial Appliance
Mobile Phone - Computer - Tablets
Electrical

TYPICAL PROPERTY VALUES

Revision 20231109

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL ⁽¹⁾			
Tensile Stress, yld, Type I, 5 mm/min	52	MPa	ASTM D638
Tensile Stress, brk, Type I, 5 mm/min	51	MPa	ASTM D638
Tensile Strain, yld, Type I, 5 mm/min	9.3	%	ASTM D638
Tensile Strain, brk, Type I, 5 mm/min	12	%	ASTM D638
Tensile Modulus, 50 mm/min	2780	MPa	ASTM D638
Flexural Modulus, 1.3 mm/min, 50 mm span	2640	MPa	ASTM D790
Tensile Stress, yield, 5 mm/min	51	MPa	ISO 527
Tensile Stress, break, 5 mm/min	51	MPa	ISO 527
Tensile Strain, yield, 5 mm/min	9.8	%	ISO 527
Tensile Strain, break, 5 mm/min	10.9	%	ISO 527
Tensile Modulus, 1 mm/min	2900	MPa	ISO 527
Flexural Stress	78	MPa	ISO 178
Flexural Modulus, 2 mm/min	2340	MPa	ISO 178
IMPACT ⁽¹⁾			
Izod Impact, unnotched, 23°C	880	J/m	ASTM D4812
Izod Impact, notched, 23°C	39	J/m	ASTM D256
Instrumented Dart Impact Total Energy, 23°C	6	J	ASTM D3763
Izod Impact, unnotched 80°10°4 +23°C	53	kJ/m ²	ISO 180/1U
Izod Impact, notched 80°10°4 +23°C	3	kJ/m ²	ISO 180/1A
THERMAL ⁽¹⁾			

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CHEMISTRY THAT MATTERS™

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
HDT, 0.45 MPa, 3.2 mm, unannealed	182	°C	ASTM D648
HDT, 1.82 MPa, 3.2mm, unannealed	58	°C	ASTM D648
CTE, -30°C to 30°C, flow	9.8E-05	1/°C	ASTM D696
CTE, -30°C to 30°C, xflow	9.9E-05	1/°C	ASTM D696
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	160	°C	ISO 75/Bf
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	57	°C	ISO 75/Af
PHYSICAL ⁽¹⁾			
Density	1.38	g/cm ³	ASTM D792
Mold Shrinkage, flow, 24 hrs ⁽²⁾	2 – 4	%	ASTM D955
Mold Shrinkage, xflow, 24 hrs ⁽²⁾	2 – 4	%	ASTM D955
Wear Factor Washer	25	10 ⁻⁴ in ⁴ -min/ft-lb-hr	ASTM D3702 Modified: Manual
Wear Factor Ring	2	10 ⁻⁴ in ⁴ -min/ft-lb-hr	ASTM D3702 Modified: Manual
Dynamic COF	0.35	-	ASTM D3702 Modified: Manual
Static COF	0.31	-	ASTM D3702 Modified: Manual
Density	1.38	g/cm ³	ISO 1183
Moisture Absorption (23°C / 50% RH)	0.09	%	ISO 62
INJECTION MOLDING ⁽³⁾			
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) 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) 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.

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