

LNPT[™] LUBRICOMP[™] COMPOUND YL003C

YL-4030 CCS

DESCRIPTION

LNP LUBRICOMP YL003C compound is based on Polyester Elastomer resin containing 15% PTFE. Added features of this grade include: LNP Clean Compounding Technology, Wear Resistant.

GENERAL INFORMATION

Features	Wear resistant, Low ionics/Outgassing/Liquid particle count
Fillers	Unreinforced, PTFE
Polymer Types	Thermoplastic Polyester Elastomer (TPEE)
Processing Techniques	Injection Molding

INDUSTRY

Electrical and Electronics
Industrial

SUB INDUSTRY

Electronic Components, Mobile Phone - Computer - Tablets
Electrical, Material Handling

TYPICAL PROPERTY VALUES

Revision 20231109

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL ⁽¹⁾			
Tensile Stress, break	22	MPa	ASTM D638
Tensile Strain, break	90	%	ASTM D638
Tensile Modulus, 50 mm/min	280	MPa	ASTM D638
Flexural Stress	19	MPa	ASTM D790
Flexural Modulus	290	MPa	ASTM D790
Hardness, Shore D	56	-	ASTM D2240
Tensile Strain, break, 50 mm/min	>450	%	ISO 527
Tensile Modulus, 1 mm/min	260	MPa	ISO 527
Flexural Stress	12	MPa	ISO 178
Flexural Modulus	280	MPa	ISO 178
IMPACT ⁽¹⁾			
Izod Impact, unnotched, 23°C	580	J/m	ASTM D4812
Izod Impact, notched, 23°C	150	J/m	ASTM D256
Izod Impact, unnotched 80°10°3 +23°C	48	kJ/m ²	ISO 180/1U
Izod Impact, unnotched 80°10°4 +23°C	23	kJ/m ²	ISO 180/1U
THERMAL ⁽¹⁾			
HDT, 0.45 MPa, 6.4 mm, unannealed	85	°C	ASTM D648
HDT, 1.82 MPa, 6.4 mm, unannealed	54	°C	ASTM D648
CTE, -40°C to 40°C, flow	1.1E-04	1/°C	ASTM E831
CTE, -40°C to 40°C, xflow	1.8E-04	1/°C	ASTM E831
CTE, -40°C to 40°C, flow	1.1E-04	1/°C	ISO 11359-2
CTE, -40°C to 40°C, xflow	1.8E-04	1/°C	ISO 11359-2

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CHEMISTRY THAT MATTERS[™]

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	88	°C	ISO 75/Bf
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	57	°C	ISO 75/Af
PHYSICAL ⁽¹⁾			
Density	1.27	g/cm ³	ASTM D792
Water Absorption, (23°C/48hrs)	0.2	%	ASTM D570
Mold Shrinkage, flow, 24 hrs ⁽²⁾	1.5 – 1.7	%	ASTM D955
Mold Shrinkage, xflow, 24 hrs ⁽²⁾	1.7 – 1.9	%	ASTM D955
Mold Shrinkage, flow, 24 hrs ⁽²⁾	1.6	%	ISO 294
Mold Shrinkage, xflow, 24 hrs ⁽²⁾	1.8	%	ISO 294
Density	1.27	g/cm ³	ISO 1183
Water Absorption, (23°C/saturated)	0.5	%	ISO 62-1
FLAME CHARACTERISTICS ⁽³⁾			
UL Yellow Card Link	E207780-103093722	-	-
UL Recognized, 94HB Flame Class Rating	1	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.

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