LNP™ LUBRICOMP™ COMPOUND FL003HL

DESCRIPTION

LNP LUBRICOMP FL003HL compound is based on Polyethylene (PE) resin containing 15% PTFE. Added features of this grade include Wear Resistant, Food Contact and Healthcare/Formula lock.

GENERAL INFORMATION	
Features	Wear resistant, Food contact, Healthcare/Formula lock
Fillers	Unreinforced, PTFE
Polymer Types	Polyethylene, Unspecified (PE, Unspecified)
Processing Techniques	Injection Molding

INDUSTRY	SUB INDUSTRY
Hygiene and Healthcare	Pharmaceutical Packaging and Drug Delivery, Surgical devices, General Healthcare, Patient Testing
Packaging	Food & Beverage

TYPICAL PROPERTY VALUES

Revision 20250227

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL [1]			
Tensile Stress, yld, Type I, 5 mm/min	24	MPa	ASTM D638
Tensile Stress, brk, Type I, 5 mm/min	14	MPa	ASTM D638
Tensile Strain, yld, Type I, 5 mm/min	8.5	%	ASTM D638
Tensile Strain, brk, Type I, 5 mm/min	59	%	ASTM D638
Tensile Modulus, 50 mm/min	1480	MPa	ASTM D638
Flexural Modulus, 1.3 mm/min, 50 mm span	850	MPa	ASTM D790
Tensile Stress, yield, 5 mm/min	24	MPa	ISO 527
Tensile Stress, break, 5 mm/min	12	MPa	ISO 527
Tensile Strain, yield, 5 mm/min	8.4	%	ISO 527
Tensile Strain, break, 5 mm/min	237	%	ISO 527
Tensile Modulus, 1 mm/min	1310	MPa	ISO 527
Flexural Stress	20	MPa	ISO 178
Flexural Modulus, 2 mm/min	920	MPa	ISO 178
IMPACT [1]			
Izod Impact, unnotched, 23°C	1460	J/m	ASTM D4812
Izod Impact, notched, 23°C	39	J/m	ASTM D256
Multiaxial Impact	4	J	ISO 6603
Instrumented Dart Impact Total Energy, 23°C	8	J	ASTM D3763
Izod Impact, unnotched 80*10*4 +23°C	94	kJ/m²	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	3	kJ/m²	ISO 180/1A
THERMAL [1]			
HDT, 0.45 MPa, 3.2 mm, unannealed	72	°C	ASTM D648
HDT, 1.82 MPa, 3.2mm, unannealed	46	°C	ASTM D648

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
CTE, -30°C to 30°C, flow	1.34E-04	1/°C	ASTM E831
CTE, -30°C to 30°C, xflow	1.45E-04	1/°C	ASTM E831
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	82	°C	ISO 75/Bf
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	46	°C	ISO 75/Af
PHYSICAL (1)			
Specific Gravity	1.03	-	ASTM D792
Density	1.03	g/cm³	ASTM D792
Moisture Absorption, (23°C/50% RH/24 hrs)	0.04	%	ASTM D570
Mold Shrinkage, flow, 24 hrs (2)	1 – 3	%	ASTM D955
Mold Shrinkage, xflow, 24 hrs (2)	1 – 3	%	ASTM D955
Moisture Absorption (23°C / 50% RH)	0.04	%	ISO 62
INJECTION MOLDING (3)			
Drying Temperature	80	°C	
Drying Time	2 – 4	Hrs	
Melt Temperature	230	°C	
Front - Zone 3 Temperature	220 – 230	°C	
Middle - Zone 2 Temperature	210 – 220	°C	
Rear - Zone 1 Temperature	195 – 205	°C	
Mold Temperature	40 – 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) 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