LNP™ LUBRICOMP™ COMPOUND SP003

SL-4530
REGION ASIA

DESCRIPTION

LNP LUBRICOMP SP003 is a compound based on Nylon 12 resin containing 15% PTFE/Silicone. Added feature of this material is: Wear Resistant.

TYPICAL PROPERTY VALUES

Revision 20190412

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL			
Tensile Stress, yield	37	MPa	ASTM D 638
Tensile Stress, break	35	MPa	ASTM D 638
Tensile Strain, yield	17.5	%	ASTM D 638
Tensile Strain, break	23.9	%	ASTM D 638
Tensile Modulus, 50 mm/min	1370	MPa	ASTM D 638
Flexural Modulus	1370	MPa	ASTM D 790
Tensile Stress, yield	38	MPa	ISO 527
Tensile Stress, break	36	MPa	ISO 527
Tensile Strain, yield	18.4	%	ISO 527
Tensile Strain, break	32.9	%	ISO 527
Tensile Modulus, 1 mm/min	1580	MPa	ISO 527
Flexural Stress	44	MPa	ISO 178
Flexural Modulus	1300	MPa	ISO 178
IMPACT			
Izod Impact, unnotched, 23°C	683	J/m	ASTM D 4812
Izod Impact, notched, 23°C	53	J/m	ASTM D 256
Instrumented Impact Energy @ peak, 23°C	5	J	ASTM D 3763
Multiaxial Impact	7	J	ISO 6603
Izod Impact, unnotched 80*10*4 +23°C	48	kJ/m²	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	4	kJ/m²	ISO 180/1A
THERMAL			
HDT, 0.45 MPa, 3.2 mm, unannealed	150	°C	ASTM D 648
HDT, 1.82 MPa, 3.2mm, unannealed	146	°C	ASTM D 648
CTE, -40°C to 40°C, flow	1.13E-04	1/°C	ASTM E 831
CTE, -40°C to 40°C, xflow	1.08E-04	1/°C	ASTM E 831
CTE, -40°C to 40°C, flow	1.12E-04	1/°C	ISO 11359-2
CTE, -40°C to 40°C, xflow	1.08E-04	1/°C	ISO 11359-2
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	134	°C	ISO 75/Bf
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	147	°C	ISO 75/Af
PHYSICAL			
Density	1.09	g/cm³	ASTM D 792
Moisture Absorption, 50% RH, 24 hrs	0.2	%	ASTM D 570
Mold Shrinkage, flow, 24 hrs	0.9 – 1.1	%	ASTM D 955

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PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
Mold Shrinkage, xflow, 24 hrs	1.8 – 2	%	ASTM D 955
Mold Shrinkage, flow, 24 hrs	1	%	ISO 294
Mold Shrinkage, xflow, 24 hrs	1.9	%	ISO 294
Wear Factor Washer	13	10^-10 in^5-min/ft-lb-hr	ASTM D 3702 Modified: Manual
Dynamic COF	0.23	-	ASTM D 3702 Modified: Manual
Static COF	0.14	-	ASTM D 3702 Modified: Manual
Density	1.09	g/cm³	ISO 1183
INJECTION MOLDING			
Drying Temperature	80	°C	
Drying Time	4	hrs	
Maximum Moisture Content	0.12 – 0.2	%	
Melt Temperature	225 – 240	°C	
Front - Zone 3 Temperature	225 – 240	°C	
Middle - Zone 2 Temperature	220 – 230	°C	
Rear - Zone 1 Temperature	215 – 225	°C	
Mold Temperature	70 – 80	°C	
Back Pressure	0.2 – 0.3	MPa	
Screw Speed	30 – 60	rpm	

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