LNP™ LUBRICOMP™ COMPOUND WBL36L

WBL-4036 LE
REGION ASIA

DESCRIPTION

LNP LUBRICOMP WBL36L is a compound based on PBT resin containing 30% Glass Bead, 15% PTFE. Added features of this material include: Wear Resistant, Low Extractible.

TYPICAL PROPERTY VALUES

Revision 20181231

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL			
Tensile Stress, yld, Type I, 5 mm/min	37	MPa	ASTM D 638
Tensile Stress, brk, Type I, 5 mm/min	36	MPa	ASTM D 638
Tensile Strain, yld, Type I, 5 mm/min	2.2	%	ASTM D 638
Tensile Strain, brk, Type I, 5 mm/min	3.1	%	ASTM D 638
Tensile Modulus, 50 mm/min	4130	MPa	ASTM D 638
Flexural Stress, yld, 1.3 mm/min, 50 mm span	74	MPa	ASTM D 790
Flexural Modulus, 1.3 mm/min, 50 mm span	3900	MPa	ASTM D 790
Tensile Stress, yield, 5 mm/min	37	MPa	ISO 527
Tensile Stress, break, 5 mm/min	36	MPa	ISO 527
Tensile Strain, yield, 5 mm/min	2.4	%	ISO 527
Tensile Strain, break, 5 mm/min	3.4	%	ISO 527
Tensile Modulus, 1 mm/min	4020	MPa	ISO 527
Flexural Stress, yield, 2 mm/min	75	MPa	ISO 178
Flexural Modulus, 2 mm/min	4140	MPa	ISO 178
IMPACT			
Izod Impact, unnotched, 23°C	256	J/m	ASTM D 4812
Izod Impact, notched, 23°C	32	J/m	ASTM D 256
Instrumented Impact Energy @ peak, 23°C	3	J	ASTM D 3763
Multiaxial Impact	1	J	ISO 6603
Izod Impact, unnotched 80*10*4 +23°C	18	kJ/m²	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	3	kJ/m²	ISO 180/1A
THERMAL			
HDT, 0.45 MPa, 3.2 mm, unannealed	188	°C	ASTM D 648
HDT, 1.82 MPa, 3.2mm, unannealed	95	°C	ASTM D 648
CTE, -40°C to 40°C, flow	7.38E-05	1/°C	ASTM E 831
CTE, -40°C to 40°C, xflow	7.02E-05	1/°C	ASTM E 831
CTE, -40°C to 40°C, flow	7.4E-05	1/°C	ISO 11359-2
CTE, -40°C to 40°C, xflow	7.1E-05	1/°C	ISO 11359-2
CTE, 23°C to 60°C, flow	7.4E-05	1/°C	ISO 11359-2
CTE, 23°C to 60°C, xflow	7.1E-05	1/°C	ISO 11359-2
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	184	°C	ISO 75/Bf
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	94	°C	ISO 75/Af
PHYSICAL			

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PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
Density	1.69	g/cm³	ASTM D 792
Moisture Absorption, 50% RH, 24 hrs	0.04	%	ASTM D 570
Mold Shrinkage, flow	2.4	%	SABIC method
Mold Shrinkage, xflow	1.9	%	SABIC method
Mold Shrinkage, flow, 24 hrs	1 – 3	%	ASTM D 955
Mold Shrinkage, xflow, 24 hrs	1.7 – 2	%	ASTM D 955
Mold Shrinkage, flow, 24 hrs	2.4	%	ISO 294
Mold Shrinkage, xflow, 24 hrs	1.9	%	ISO 294
Wear Factor Washer	25	10^-10 in^5-min/ft-lb-hr	ASTM D 3702 Modified: Manual
Dynamic COF	0.66	-	ASTM D 3702 Modified: Manual
Static COF	0.63	-	ASTM D 3702 Modified: Manual
Density	1.69	g/cm³	ISO 1183
INJECTION MOLDING			
Drying Temperature	120	°C	
Drying Time	4	hrs	
Maximum Moisture Content	0.05	%	
Melt Temperature	240 – 250	°C	
Front - Zone 3 Temperature	250 – 260	°C	
Middle - Zone 2 Temperature	240 – 250	°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	

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