LNP™ LUBRICOMP™ COMPOUND DX98306H

PDX-D-98306 LE EES
REGION ASIA

DESCRIPTION

LNP LUBRICOMP DX98306H is a compound based on Polycarbonate resin containing Proprietary Fillers. Added features of this material include: Wear Resistant, Low Extractible.

TYPICAL PROPERTY VALUES

Revision 20191108

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL			
Tensile Stress, yield	51	MPa	ASTM D 638
Tensile Stress, break	42	MPa	ASTM D 638
Tensile Stress, brk, Type I, 5 mm/min	43	MPa	ASTM D 638
Tensile Strain, yield	5.3	%	ASTM D 638
Tensile Strain, break	32.8	%	ASTM D 638
Tensile Strain, brk, Type I, 5 mm/min	2.3	%	ASTM D 638
Tensile Modulus, 50 mm/min	2060	MPa	ASTM D 638
Tensile Modulus, 5 mm/min	5090	MPa	ASTM D 638
Flexural Stress, yld, 1.3 mm/min, 50 mm span	85	MPa	ASTM D 790
Flexural Modulus	2060	MPa	ASTM D 790
Flexural Modulus, 1.3 mm/min, 50 mm span	5010	MPa	ASTM D 790
Tensile Stress, yield	51	MPa	ISO 527
Tensile Stress, break	43	MPa	ISO 527
Tensile Stress, break, 5 mm/min	48	MPa	ISO 527
Tensile Strain, yield	5.3	%	ISO 527
Tensile Strain, break	38.2	%	ISO 527
Tensile Strain, break, 5 mm/min	2.3	%	ISO 527
Tensile Modulus, 1 mm/min	2140	MPa	ISO 527
Flexural Stress	71	MPa	ISO 178
Flexural Stress, yield, 2 mm/min	90	MPa	ISO 178
Flexural Modulus	2100	MPa	ISO 178
Flexural Modulus, 2 mm/min	5120	MPa	ISO 178
IMPACT			
Izod Impact, unnotched, 23°C	1767	J/m	ASTM D 4812
Izod Impact, notched, 23°C	154	J/m	ASTM D 256
Izod Impact, notched, -30°C	69	J/m	ASTM D 256
Instrumented Impact Energy @ peak, 23°C	34	J	ASTM D 3763
Multiaxial Impact	32	J	ISO 6603
Izod Impact, unnotched 80*10*4 +23°C	180	kJ/m²	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	13	kJ/m²	ISO 180/1A
Izod Impact, notched 80*10*4 -30°C	5	kJ/m²	ISO 180/1A
Charpy 23°C, V-notch Edgew 80*10*4 sp=62mm	5	kJ/m²	ISO 179/1eA
THERMAL			

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PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
Vicat Softening Temp, Rate B/50	141	°C	ASTM D 1525
HDT, 0.45 MPa, 3.2 mm, unannealed	132	°C	ASTM D 648
HDT, 1.82 MPa, 3.2mm, unannealed	122	°C	ASTM D 648
CTE, -40°C to 40°C, flow	7.56E-05	1/°C	ASTM E 831
CTE, -40°C to 40°C, xflow	7.38E-05	1/°C	ASTM E 831
CTE, -40°C to 40°C, flow	7.5E-05	1/°C	ISO 11359-2
CTE, -40°C to 40°C, xflow	7.4E-05	1/°C	ISO 11359-2
Vicat Softening Temp, Rate B/50	141	°C	ISO 306
Vicat Softening Temp, Rate B/120	145	°C	ISO 306
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	133	°C	ISO 75/Bf
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	123	°C	ISO 75/Af
PHYSICAL			
Specific Gravity	1.48	-	ASTM D 792
Density	1.29	g/cm³	ASTM D 792
Moisture Absorption, 50% RH, 24 hrs	0.1	%	ASTM D 570
Mold Shrinkage, flow, 3.2 mm	0.3 – 0.5	%	SABIC method
Mold Shrinkage, flow, 24 hrs	0.5 – 0.7	%	ASTM D 955
Mold Shrinkage, xflow, 24 hrs	0.6 – 0.8	%	ASTM D 955
Mold Shrinkage, flow, 24 hrs	0.64	%	ISO 294
Mold Shrinkage, xflow, 24 hrs	0.74	%	ISO 294
Melt Flow Rate, 300°C/1.2 kgf	8.5	g/10 min	ASTM D 1238
Wear Factor Washer	21	10^-10 in^5-min/ft-lb-hr	ASTM D 3702 Modified: Manual
Dynamic COF	0.37	-	ASTM D 3702 Modified: Manual
Static COF	0.32	-	ASTM D 3702 Modified: Manual
Density	1.29	g/cm³	ISO 1183
Water Absorption, (23°C/sat)	0.2	%	ISO 62
Moisture Absorption (23°C / 50% RH)	0.1	%	ISO 62
Melt Volume Rate, MVR at 300°C/1.2 kg	6	cm³/10 min	ISO 1133
FLAME CHARACTERISTICS			
UL Recognized, 94HB Flame Class Rating	0.7	mm	UL 94
INJECTION MOLDING			
Drying Temperature	120	°C	
Drying Time	4	hrs	
Maximum Moisture Content	0.02	%	
Melt Temperature	300 – 315	°C	
Front - Zone 3 Temperature	310 – 320	°C	
Middle - Zone 2 Temperature	305 – 315	°C	
Rear - Zone 1 Temperature	295 – 305	°C	
Mold Temperature	80 – 110	°C	
Back Pressure	0.2 – 0.3	MPa	
Screw Speed	30 – 60	rpm	

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