LNP™ LUBRICOMP™ COMPOUND VN001

VL-4210 D

DESCRIPTION

LNP LUBRICOMP VN001 is a compound based on Super Tough Nylon containing 2% MOS2. Added feature of th is grade is: Wear Resistant.

TYPICAL PROPERTY VALUES

Revision 20191210

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL			
Tensile Stress, yld, Type I, 5 mm/min	53	MPa	ASTM D 638
Tensile Stress, brk, Type I, 5 mm/min	48	MPa	ASTM D 638
Tensile Strain, yld, Type I, 5 mm/min	38	%	ASTM D 638
Tensile Strain, brk, Type I, 5 mm/min	40.6	%	ASTM D 638
Tensile Modulus, 50 mm/min	2290	MPa	ASTM D 638
Flexural Modulus, 1.3 mm/min, 50 mm span	1910	MPa	ASTM D 790
Tensile Stress, yield, 5 mm/min	56	MPa	ISO 527
Tensile Stress, break, 5 mm/min	53	MPa	ISO 527
Tensile Strain, yield, 5 mm/min	5.2	%	ISO 527
Tensile Strain, break, 5 mm/min	28	%	ISO 527
Tensile Modulus, 1 mm/min	2380	MPa	ISO 527
Flexural Stress, yield, 2 mm/min	69	MPa	ISO 178
Flexural Strain, break, 2 mm/min	4	%	ISO 178
Flexural Modulus, 2 mm/min	2080	MPa	ISO 178
IMPACT			
Izod Impact, unnotched, 23°C	1730	J/m	ASTM D 4812
Izod Impact, notched, 23°C	158	J/m	ASTM D 256
Multiaxial Impact	22	J	ISO 6603
Izod Impact, unnotched 80*10*4 +23°C	182	kJ/m²	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	15	kJ/m²	ISO 180/1A
THERMAL			
HDT, 0.45 MPa, 3.2 mm, unannealed	216	°C	ASTM D 648
HDT, 1.82 MPa, 3.2mm, unannealed	65	°C	ASTM D 648
CTE, -30°C to 30°C, flow	1.18E-04	1/°C	ASTM D 696
CTE, -30°C to 30°C, xflow	1.18E-04	1/°C	ASTM D 696
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	210	°C	ISO 75/Bf
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	64	°C	ISO 75/Af
PHYSICAL			
Density	1.1	g/cm³	ASTM D 792
Moisture Absorption, 50% RH, 24 hrs	0.8	%	ASTM D 570
Mold Shrinkage, flow, 24 hrs	2 – 5	%	ASTM D 955
Mold Shrinkage, xflow, 24 hrs	2 – 5	%	ASTM D 955
Wear Factor Washer	71	10^-10 in^5-min/ft-lb-hr	ASTM D 3702 Modified: Manual
Dynamic COF	0.79	-	ASTM D 3702 Modified: Manual

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PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
Static COF	0.36	-	ASTM D 3702 Modified: Manual
Density	1.1	g/cm³	ISO 1183
Moisture Absorption (23°C / 50% RH)	1.1	%	ISO 62
INJECTION MOLDING			
Drying Temperature	80	°C	
Drying Time	4	hrs	
Maximum Moisture Content	0.15	%	
Melt Temperature	280 – 295	°C	
Front - Zone 3 Temperature	295 – 305	°C	
Middle - Zone 2 Temperature	275 – 290	°C	
Rear - Zone 1 Temperature	260 – 270	°C	
Mold Temperature	95 – 110	°C	
Back Pressure	0.2 – 0.3	MPa	
Screw Speed	30 – 60	rpm	

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