LNP™ LUBRICOMP™ COMPOUND RAP22

RAL-4522

DESCRIPTION

LNP LUBRICOMP RAP22 is a compound based on Nylon 66 resin containing 10% Aramid, 10% PTFE/Silicone. Added feature of this grade includes: Wear Resistant.

TYPICAL PROPERTY VALUES

Revision 20191210

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL			
Tensile Stress, yld, Type I, 5 mm/min	51	MPa	ASTM D 638
Tensile Stress, brk, Type I, 5 mm/min	49	MPa	ASTM D 638
Tensile Strain, yld, Type I, 5 mm/min	2.6	%	ASTM D 638
Tensile Strain, brk, Type I, 5 mm/min	2.6	%	ASTM D 638
Tensile Modulus, 50 mm/min	3390	MPa	ASTM D 638
Flexural Modulus, 1.3 mm/min, 50 mm span	3260	MPa	ASTM D 790
Tensile Stress, yield, 5 mm/min	71	MPa	ISO 527
Tensile Stress, break, 5 mm/min	71	MPa	ISO 527
Tensile Strain, yield, 5 mm/min	5.9	%	ISO 527
Tensile Strain, break, 5 mm/min	6	%	ISO 527
Tensile Modulus, 1 mm/min	3420	MPa	ISO 527
Flexural Stress	103	MPa	ISO 178
Flexural Modulus, 2 mm/min	3250	MPa	ISO 178
IMPACT			
Izod Impact, unnotched, 23°C	342	J/m	ASTM D 4812
Izod Impact, notched, 23°C	29	J/m	ASTM D 256
Instrumented Impact Total Energy, 23°C	4	J	ASTM D 3763
Izod Impact, unnotched 80*10*4 +23°C	24	kJ/m²	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	3	kJ/m²	ISO 180/1A
THERMAL			
HDT, 1.82 MPa, 3.2mm, unannealed	189	°C	ASTM D 648
CTE, -30°C to 30°C, flow	4.9E-05	1/°C	ASTM D 696
CTE, -30°C to 30°C, xflow	8.7E-05	1/°C	ASTM D 696
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	224	°C	ISO 75/Bf
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	100	°C	ISO 75/Af
PHYSICAL			
Density	1.2	g/cm³	ASTM D 792
Moisture Absorption, 50% RH, 24 hrs	0.71	%	ASTM D 570
Mold Shrinkage, flow, 24 hrs	1 – 3	%	ASTM D 955
Mold Shrinkage, xflow, 24 hrs	2 – 4	%	ASTM D 955
Wear Factor Washer	23	10^-10 in^5-min/ft-lb-hr	ASTM D 3702 Modified: Manual
Wear Factor Ring	-1 - -1	10^-10 in^5-min/ft-lb-hr	ASTM D 3702 Modified: Manual
Dynamic COF	0.37	-	ASTM D 3702 Modified: Manual
Static COF	0.26	-	ASTM D 3702 Modified: Manual

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PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
Density	1.2	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 – 0.25	%	
Melt Temperature	275 – 290	°C	
Front - Zone 3 Temperature	295 – 305	°C	
Middle - Zone 2 Temperature	280 – 295	°C	
Rear - Zone 1 Temperature	265 – 275	°C	
Mold Temperature	80 – 95	°C	
Back Pressure	0.2 – 0.3	MPa	
Screw Speed	30 – 60	rpm	

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