LNP™ LUBRICOMP™ COMPOUND RP004S

RL-4540 HS

DESCRIPTION

LNP LUBRICOMP RP004S is a compound based on Nylon 66 containing PTFE/Silicone. Added features of this grade include: Heat Stabilized, Wear Resistant.

TYPICAL PROPERTY VALUES

Revision 20191210

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL			
Tensile Stress, yld, Type I, 5 mm/min	61	MPa	ASTM D 638
Tensile Stress, brk, Type I, 5 mm/min	59	MPa	ASTM D 638
Tensile Strain, yld, Type I, 5 mm/min	4.8	%	ASTM D 638
Tensile Strain, brk, Type I, 5 mm/min	18	%	ASTM D 638
Tensile Modulus, 50 mm/min	2950	MPa	ASTM D 638
Flexural Modulus, 1.3 mm/min, 50 mm span	2150	MPa	ASTM D 790
Tensile Stress, yield, 5 mm/min	65	MPa	ISO 527
Tensile Stress, break, 5 mm/min	64	MPa	ISO 527
Tensile Strain, yield, 5 mm/min	4.8	%	ISO 527
Tensile Strain, break, 5 mm/min	19	%	ISO 527
Tensile Modulus, 1 mm/min	2750	MPa	ISO 527
Flexural Stress	78	MPa	ISO 178
Flexural Modulus, 2 mm/min	2220	MPa	ISO 178
IMPACT			
Izod Impact, unnotched, 23°C	1360	J/m	ASTM D 4812
Izod Impact, notched, 23°C	46	J/m	ASTM D 256
Multiaxial Impact	2	J	ISO 6603
Instrumented Impact Total Energy, 23°C	3	J	ASTM D 3763
Izod Impact, unnotched 80*10*4 +23°C	115	kJ/m²	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	5	kJ/m²	ISO 180/1A
THERMAL			
HDT, 0.45 MPa, 3.2 mm, unannealed	184	°C	ASTM D 648
HDT, 1.82 MPa, 3.2mm, unannealed	57	°C	ASTM D 648
CTE, -30°C to 30°C, flow	1.15E+02	1/°C	ASTM D 696
CTE, -30°C to 30°C, xflow	1.13E+02	1/°C	ASTM D 696
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	154	°C	ISO 75/Bf
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	57	°C	ISO 75/Af
PHYSICAL			
Specific Gravity	1.24	-	ASTM D 792
Moisture Absorption, 50% RH, 24 hrs	0.86	%	ASTM D 570
Mold Shrinkage, flow, 24 hrs	1 – 3	%	ASTM D 955
Mold Shrinkage, xflow, 24 hrs	1 – 3	%	ASTM D 955
Wear Factor Washer	4	10^-10 in^5-min/ft-lb-hr	ASTM D 3702 Modified: Manual
Wear Factor Ring	-1	10^-10 in^5-min/ft-lb-hr	ASTM D 3702 Modified: Manual

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PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
Dynamic COF	0.23	-	ASTM D 3702 Modified: Manual
Static COF	0.11	-	ASTM D 3702 Modified: Manual
Density	1.24	g/cm³	ISO 1183
Moisture Absorption (23°C / 50% RH)	1.2	%	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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