



LNP™ LUBRICOMP™ Compound RAL32

Americas: COMMERCIAL

Also known as: LNP™ LUBRICOMP™ Compound RAL-4032

Product reorder name: RAL32

LNP™ LUBRICOMP™ RAL32 is a compound based on Nylon 66 resin containing 10% Aramid, 15% PTFE. Added feature of this grade is: Wear Resistant.

TYPICAL PROPERTIES ¹	TYPICAL VALUE	Unit	Standard
MECHANICAL			
Tensile Stress, brk, Type I, 5 mm/min	840	kgf/cm ²	ASTM D 638
Tensile Strain, brk, Type I, 5 mm/min	5.9	%	ASTM D 638
Tensile Modulus, 5 mm/min	39200	kgf/cm ²	ASTM D 638
Flexural Stress, yld, 1.3 mm/min, 50 mm span	1260	kgf/cm ²	ASTM D 790
Flexural Stress, brk, 1.3 mm/min, 50 mm span	1250	kgf/cm ²	ASTM D 790
Flexural Modulus, 1.3 mm/min, 50 mm span	35400	kgf/cm ²	ASTM D 790
Tensile Stress, break, 5 mm/min	78	MPa	ISO 527
Tensile Strain, break, 5 mm/min	6.2	%	ISO 527
Tensile Modulus, 1 mm/min	3860	MPa	ISO 527
Flexural Stress	113	MPa	ISO 178
Flexural Modulus, 2 mm/min	3470	MPa	ISO 178
IMPACT			
Izod Impact, unnotched, 23°C	48	cm-kgf/cm	ASTM D 4812
Izod Impact, notched, 23°C	4	cm-kgf/cm	ASTM D 256
Multiaxial Impact	14	cm-kgf	ISO 6603
Instrumented Impact Total Energy, 23°C	40	cm-kgf	ASTM D 3763
Izod Impact, unnotched 80*10*4 +23°C	28	kJ/m ²	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	3	kJ/m ²	ISO 180/1A
THERMAL			
HDT, 0.45 MPa, 3.2 mm, unannealed	254	°C	ASTM D 648
HDT, 1.82 MPa, 3.2mm, unannealed	208	°C	ASTM D 648
CTE, -30°C to 30°C, flow	6.3E-05	1/°C	ASTM D 696
CTE, -30°C to 30°C, xflow	8.2E-05	1/°C	ASTM D 696



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THERMAL			
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	242	°C	ISO 75/Bf
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	115	°C	ISO 75/Af
PHYSICAL			
Specific Gravity	1.25	-	ASTM D 792
Density	1.25	g/cm ³	ASTM D 792
Moisture Absorption, 50% RH, 24 hrs	0.74	%	ASTM D 570
Mold Shrinkage, flow, 24 hrs (5)	0.9 - 2	%	ASTM D 955
Mold Shrinkage, xflow, 24 hrs (5)	1 - 3	%	ASTM D 955
Wear Factor Washer	12	10 ⁻¹⁰ in ⁵ -min/ft-lb-hr	ASTM D 3702 Modified
Wear Factor Ring	0	10 ⁻¹⁰ in ⁵ -min/ft-lb-hr	ASTM D 3702 Modified
Dynamic COF	0.34	-	ASTM D 3702 Modified
Static COF	0.3	-	ASTM D 3702 Modified
Moisture Absorption (23°C / 50% RH)	1.1	%	ISO 62



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PROCESSING PARAMETERS	TYPICAL VALUE	Unit
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