



LNP™ LUBRICOMP™ Compound RAL22I

Americas: COMMERCIAL

Also known as: LNP™ LUBRICOMP™ Compound RAL-4022 HI

Product reorder name: RAL22I

LNP LUBRICOMP RAL22I is a compound based on Nylon 66 resin containing 10% PTFE, 10% Aramid Fiber. Added features of this material include: Wear Resistant, High Impact.

TYPICAL PROPERTIES ¹	TYPICAL VALUE	Unit	Standard
MECHANICAL			
Tensile Stress, yld, Type I, 5 mm/min	750	kgf/cm ²	ASTM D 638
Tensile Stress, brk, Type I, 5 mm/min	740	kgf/cm ²	ASTM D 638
Tensile Strain, yld, Type I, 5 mm/min	8.3	%	ASTM D 638
Tensile Strain, brk, Type I, 5 mm/min	8.6	%	ASTM D 638
Tensile Modulus, 50 mm/min	35800	kgf/cm ²	ASTM D 638
Flexural Modulus, 1.3 mm/min, 50 mm span	33500	kgf/cm ²	ASTM D 790
Tensile Stress, break, 5 mm/min	72	MPa	ISO 527
Tensile Strain, yield, 5 mm/min	8.3	%	ISO 527
Tensile Strain, break, 5 mm/min	8.6	%	ISO 527
Tensile Modulus, 1 mm/min	3430	MPa	ISO 527
Flexural Stress	95	MPa	ISO 178
Flexural Modulus, 2 mm/min	3220	MPa	ISO 178
IMPACT			
Izod Impact, unnotched, 23°C	61	cm-kgf/cm	ASTM D 4812
Izod Impact, notched, 23°C	5	cm-kgf/cm	ASTM D 256
Multiaxial Impact	15	cm-kgf	ISO 6603
Instrumented Impact Total Energy, 23°C	79	cm-kgf	ASTM D 3763
Izod Impact, unnotched 80*10*4 +23°C	41	kJ/m ²	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	5	kJ/m ²	ISO 180/1A
THERMAL			
HDT, 0.45 MPa, 3.2 mm, unannealed	243	°C	ASTM D 648
HDT, 1.82 MPa, 3.2mm, unannealed	156	°C	ASTM D 648
CTE, -30°C to 30°C, flow	5.7E-05	1/°C	ASTM D 696



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TYPICAL PROPERTIES ¹	TYPICAL VALUE	Unit	Standard
THERMAL			
CTE, -30°C to 30°C, xflow	8.3E-05	1/°C	ASTM D 696
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	239	°C	ISO 75/Bf
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	114	°C	ISO 75/Af
PHYSICAL			
Specific Gravity	1.22	-	ASTM D 792
Density	1.2	g/cm ³	ASTM D 792
Moisture Absorption, 50% RH, 24 hrs	0.57	%	ASTM D 570
Mold Shrinkage, flow, 24 hrs (5)	1 - 3	%	ASTM D 955
Mold Shrinkage, xflow, 24 hrs (5)	2 - 4	%	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	0.33	-	ASTM D 3702 Modified
Static COF	0.26	-	ASTM D 3702 Modified
Moisture Absorption (23°C / 50% RH)	0.91	%	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