



LNP™ LUBRICOMP™ Compound RAL23

Americas: COMMERCIAL

Also known as: LNP™ LUBRICOMP™ Compound RAL-4023

Product reorder name: RAL23

LNP LUBRICOMP™ RAL23 is a compound based on Nylon 66 resin containing 15% PTFE, 10% Aramid Fiber. Added features of this material include: Wear Resistant.

TYPICAL PROPERTIES ¹	TYPICAL VALUE	Unit	Standard
MECHANICAL			
Tensile Stress, break	910	kgf/cm ²	ASTM D 638
Tensile Strain, break	5.9	%	ASTM D 638
Tensile Modulus, 50 mm/min	37500	kgf/cm ²	ASTM D 638
Flexural Stress	1330	kgf/cm ²	ASTM D 790
Flexural Modulus	40100	kgf/cm ²	ASTM D 790
Tensile Stress, break	85	MPa	ISO 527
Tensile Strain, break	6.3	%	ISO 527
Tensile Modulus, 1 mm/min	3800	MPa	ISO 527
Flexural Stress	107	MPa	ISO 178
Flexural Modulus	3500	MPa	ISO 178
IMPACT			
Izod Impact, unnotched, 23°C	54	cm-kgf/cm	ASTM D 4812
Izod Impact, notched, 23°C	4	cm-kgf/cm	ASTM D 256
Izod Impact, unnotched 80*10*4 +23°C	37	kJ/m ²	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	4	kJ/m ²	ISO 180/1A
THERMAL			
HDT, 1.82 MPa, 3.2mm, unannealed	171	°C	ASTM D 648
CTE, -40°C to 40°C, flow	6.66E-05	1/°C	ASTM E 831
CTE, -40°C to 40°C, xflow	9.72E-05	1/°C	ASTM E 831
CTE, -40°C to 40°C, flow	6.8E-05	1/°C	ISO 11359-2
CTE, -40°C to 40°C, xflow	9.8E-05	1/°C	ISO 11359-2
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	246	°C	ISO 75/Bf
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	160	°C	ISO 75/Af



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TYPICAL PROPERTIES ¹	TYPICAL VALUE	Unit	Standard
PHYSICAL			
Density	1.24	g/cm ³	ASTM D 792
Mold Shrinkage, flow, 24 hrs (5)	1.7 - 1.8	%	ASTM D 955
Mold Shrinkage, xflow, 24 hrs (5)	2 - 2.1	%	ASTM D 955
Wear Factor Washer	23	10 ⁻¹⁰ in ⁵ -min/ft-lb-hr	ASTM D 3702 Modified
Dynamic COF	0.38	-	ASTM D 3702 Modified
Static COF	0.32	-	ASTM D 3702 Modified
Density	1.23	g/cm ³	ISO 1183



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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