LNP™ LUBRICOMP™ COMPOUND RAL23S

RAL-4023 HS
REGION ASIA

DESCRIPTION

LNP LUBRICOMP* RAL23S is a compound based on Nylon 66 resin containing 10% PTFE, 15% Aramid. Added features of this material include: Heat Stabilized, Wear Resistant.

TYPICAL PROPERTY VALUES

Revision 20181227

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL			
Tensile Stress, break	89	MPa	ASTM D 638
Tensile Strain, break	5.9	%	ASTM D 638
Tensile Modulus, 50 mm/min	3680	MPa	ASTM D 638
Flexural Stress	131	MPa	ASTM D 790
Flexural Modulus	3930	MPa	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	534	J/m	ASTM D 4812
Izod Impact, notched, 23°C	46	J/m	ASTM D 256
Izod Impact, unnotched 80*10*4 +23°C	37	kJ/m²	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	4	kJ/m²	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
PHYSICAL			
Density	1.24	g/cm³	ASTM D 792
Mold Shrinkage, flow, 24 hrs	1.7 – 1.8	%	ASTM D 955
Mold Shrinkage, xflow, 24 hrs	2 – 2.1	%	ASTM D 955
Wear Factor Washer	23	10^-10 in^5-min/ft-lb-hr	ASTM D 3702 Modified: Manual
Dynamic COF	0.38	-	ASTM D 3702 Modified: Manual
Static COF	0.32	-	ASTM D 3702 Modified: Manual
Density	1.23	g/cm³	ISO 1183
INJECTION MOLDING			
Drying Temperature	80	°C	

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PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
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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