

LNP™ LUBRICOMP™ RAL23 compound

Polyamide 66

SABIC Innovative Plastics

Message:

LNP LUBRICOMP* RAL23 is a compound based on Nylon 66 resin containing PTFE, Aramid Fiber. Added features of this material include: Internally Lubricated.

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

Product reorder name: RAL23

General Information			
Filler / Reinforcement	Aramid fiber		
Additive	PTFE lubricant		
Features	Lubrication		
RoHS Compliance	RoHS compliance		
Processing Method	Injection molding		
Physical	Nominal Value	Unit	Test Method
Specific Gravity			
--	1.24	g/cm ³	ASTM D792
--	1.23	g/cm ³	ISO 1183
Molding Shrinkage			
Flow	0.90 - 1.3	%	Internal method
Flow: 24 hours	1.7 - 1.8	%	ASTM D955
Transverse flow: 24 hours	2.0 - 2.1	%	ASTM D955
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus			
-- ¹	3680	MPa	ASTM D638
--	3800	MPa	ISO 527-2/1
Tensile Strength			
Fracture	89.6	MPa	ASTM D638
Fracture	85.0	MPa	ISO 527-2
Tensile Elongation			
Fracture	5.9	%	ASTM D638
Fracture	6.3	%	ISO 527-2
Flexural Modulus			
--	3940	MPa	ASTM D790
--	3500	MPa	ISO 178
Flexural Strength			
--	131	MPa	ASTM D790
--	107	MPa	ISO 178
Coefficient of Friction			ASTM D3702 Modified
With self-dynamics	0.38		ASTM D3702 Modified

With Self-Static	0.32		ASTM D3702 Modified
Wear Factor - Washer	23.0	10 ⁻¹⁰ in ⁵ -min/ft-lb-hr	ASTM D3702 Modified
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact			
23°C	47	J/m	ASTM D256
23°C ²	4.0	kJ/m ²	ISO 180/1A
Unnotched Izod Impact			
23°C	530	J/m	ASTM D4812
23°C ³	37	kJ/m ²	ISO 180/1U
Thermal	Nominal Value	Unit	Test Method
Heat Deflection Temperature			
0.45 MPa, unannealed, 64.0mm span ⁴	246	°C	ISO 75-2/Bf
1.8 MPa, unannealed, 3.20mm	171	°C	ASTM D648
1.8 MPa, unannealed, 64.0mm span ⁵	160	°C	ISO 75-2/Af
Linear thermal expansion coefficient			
Flow: -40 to 40°C	6.7E-5	cm/cm/°C	ASTM E831
Flow: -40 to 40°C	6.8E-5	cm/cm/°C	ISO 11359-2
Lateral: -40 to 40°C	9.7E-5	cm/cm/°C	ASTM E831
Lateral: -40 to 40°C	9.8E-5	cm/cm/°C	ISO 11359-2
Injection	Nominal Value	Unit	
Drying Temperature	82.2	°C	
Drying Time	4.0	hr	
Suggested Max Moisture	0.15 - 0.25	%	
Rear Temperature	266 - 277	°C	
Middle Temperature	282 - 293	°C	
Front Temperature	293 - 304	°C	
Processing (Melt) Temp	277 - 288	°C	
Mold Temperature	82.2 - 93.3	°C	
Back Pressure	0.172 - 0.344	MPa	
Screw Speed	30 - 60	rpm	
NOTE			
1.	50 mm/min		
2.	80*10*4		
3.	80*10*4		
4.	80*10*4 mm		
5.	80*10*4 mm		

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