

## SABIC Innovative Plastics LNP LUBRICOMP SFP36 PA12

Category : Polymer , Thermoplastic , Nylon , Nylon 12

### Material Notes:

LNP\* LUBRICOMP\* SFP36 is a compound based on Nylon 12 resin containing 30% Glass Fiber 15% PTFE/Silicone. Added feature of this grade is: Wear Resistant.

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_SABIC-Innovative-Plastics-LNP-LUBRICOMP-SFP36-PA12.php](http://www.lookpolymers.com/polymer_SABIC-Innovative-Plastics-LNP-LUBRICOMP-SFP36-PA12.php)

Physical Properties	Metric	English	Comments
Specific Gravity	1.39 g/cc	1.39 g/cc	ASTM D792
Density	1.38 g/cc	0.0499 lb/in <sup>3</sup>	ISO 1183
Moisture Absorption	0.150 %	0.150 %	50% RH, 24 hrs; ASTM D570
	0.220 %	0.220 %	23 <sup>o</sup> C / 50% RH; ISO 62
Linear Mold Shrinkage, Flow	0.0010 - 0.0030 cm/cm	0.0010 - 0.0030 in/in	ASTM D955
	@Time 86400 sec	@Time 24.0 hour	
Linear Mold Shrinkage, Transverse	0.0070 - 0.0090 cm/cm	0.0070 - 0.0090 in/in	ASTM D955
	@Time 86400 sec	@Time 24.0 hour	

Mechanical Properties	Metric	English	Comments
Tensile Strength at Break	117 MPa	17000 psi	Type I, 5 mm/min; ASTM D638
	129 MPa	18700 psi	5 mm/min; ISO 527
Tensile Strength, Yield	125 MPa	18100 psi	Type I, 5 mm/min; ASTM D638
	129 MPa	18700 psi	5 mm/min; ISO 527
Elongation at Break	3.0 %	3.0 %	5 mm/min; ISO 527
	3.2 %	3.2 %	Type I, 5 mm/min; ASTM D638
Elongation at Yield	2.9 %	2.9 %	5 mm/min; ISO 527
	3.2 %	3.2 %	Type I, 5 mm/min; ASTM D638
Tensile Modulus	9.06 GPa	1310 ksi	50 mm/min; ASTM D638
	9.07 GPa	1320 ksi	1 mm/min; ISO 527
Flexural Strength	176 MPa	25500 psi	1.3 mm/min, 50 mm span; ASTM D790
	191 MPa	27700 psi	ISO 178

Mechanical Properties	Metric	English	Comments
Flexural Yield Strength	178 MPa	25600 psi	1.3 mm/min, 50 mm span; ASTM D790
Flexural Modulus	7.51 GPa	1090 ksi	1.3 mm/min, 50 mm span; ASTM D790
	7.92 GPa	1150 ksi	2 mm/min; ISO 178
Izod Impact, Notched	1.46 J/cm	2.74 ft-lb/in	ASTM D256
Izod Impact, Unnotched	10.0 J/cm	18.7 ft-lb/in	ASTM D4812
Izod Impact, Notched (ISO)	14.0 kJ/m <sup>2</sup>	6.66 ft-lb/in <sup>2</sup>	80*10*4; ISO 180/1A
Izod Impact, Unnotched (ISO)	58.0 kJ/m <sup>2</sup>	27.6 ft-lb/in <sup>2</sup>	80*10*4; ISO 180/1U
Dart Drop, Total Energy	9.00 J @Temperature 23.0 Â°C	6.64 ft-lb @Temperature 73.4 Â°F	ASTM D3763
Impact Test	3.00 J	2.21 ft-lb	Multiaxial Impact; ISO 6603
Coefficient of Friction, Dynamic	0.67	0.67	ASTM D3702 Modified
Coefficient of Friction, Static	0.52	0.52	ASTM D3702 Modified
K (wear) Factor	28.2 x 10 <sup>-8</sup> mm <sup>3</sup> /N-M	14.0 x 10 <sup>-10</sup> in <sup>3</sup> - min/ft-lb-hr	Washer; ASTM D3702 Modified

Thermal Properties	Metric	English	Comments
CTE, linear, Parallel to Flow	27.5 Âµm/m-Â°C @Temperature -30.0 - 30.0 Â°C	15.3 Âµin/in-Â°F @Temperature -22.0 - 86.0 Â°F	ASTM D696
CTE, linear, Transverse to Flow	80.0 Âµm/m-Â°C @Temperature -30.0 - 30.0 Â°C	44.4 Âµin/in-Â°F @Temperature -22.0 - 86.0 Â°F	ASTM D696
Deflection Temperature at 0.46 MPa (66 psi)	177 Â°C	351 Â°F	Flatw 80*10*4 sp=64mm; ISO 75/Bf
	177 Â°C @Thickness 3.20 mm	351 Â°F @Thickness 0.126 in	unannealed; ASTM D648
Deflection Temperature at 1.8 MPa (264 psi)	169 Â°C	336 Â°F	Flatw 80*10*4 sp=64mm; ISO 75/ Af
	172 Â°C @Thickness 3.20 mm	342 Â°F @Thickness 0.126 in	unannealed; ASTM D648

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