

## SABIC Innovative Plastics LNP LUBRICOMP UAL22S PPA

Category : Polymer , Thermoplastic , Polyphthalamide (PPA)

### Material Notes:

LNP\* LUBRICOMP\* UAL22S is a compound based on Polyphthalamide resin containing 10% PTFE, 10% Aramid. Added features of this material include: Wear Resistant, Heat Stabilized.

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_SABIC-Innovative-Plastics-LNP-LUBRICOMP-UAL22S-PPA.php](http://www.lookpolymers.com/polymer_SABIC-Innovative-Plastics-LNP-LUBRICOMP-UAL22S-PPA.php)

Physical Properties	Metric	English	Comments
Density	1.27 g/cc	0.0459 lb/in <sup>3</sup>	ASTM D792
	1.27 g/cc	0.0459 lb/in <sup>3</sup>	ISO 1183
Moisture Absorption	0.400 %	0.400 %	50% RH, 24 hrs; ASTM D570
Linear Mold Shrinkage, Flow	0.0087 cm/cm	0.0087 in/in	ISO 294
	@Time 86400 sec	@Time 24.0 hour	
Linear Mold Shrinkage, Transverse	0.0080 - 0.010 cm/cm	0.0080 - 0.010 in/in	ASTM D955
	@Time 86400 sec	@Time 24.0 hour	
Linear Mold Shrinkage, Transverse	0.012 - 0.014 cm/cm	0.012 - 0.014 in/in	ASTM D955
	@Time 86400 sec	@Time 24.0 hour	
Linear Mold Shrinkage, Transverse	0.013 cm/cm	0.013 in/in	ISO 294
	@Time 86400 sec	@Time 24.0 hour	

Mechanical Properties	Metric	English	Comments
Tensile Strength at Break	73.0 MPa	10600 psi	ASTM D638
	74.0 MPa	10700 psi	ISO 527
Tensile Strength, Yield	73.0 MPa	10600 psi	ASTM D638
	74.0 MPa	10700 psi	ISO 527
Elongation at Break	2.5 %	2.5 %	ISO 527
	2.7 %	2.7 %	ASTM D638
Elongation at Yield	2.5 %	2.5 %	ISO 527
	2.7 %	2.7 %	ASTM D638
Tensile Modulus	3.44 GPa	499 ksi	50 mm/min; ASTM D638

Mechanical Properties	4.00 GPa Metric	580 ksi English	1 mm/min: ISO 527 Comments
Flexural Strength	110 MPa	16000 psi	ASTM D790
	122 MPa	17700 psi	ISO 178
Flexural Modulus	3.44 GPa	499 ksi	ASTM D790
	3.70 GPa	537 ksi	ISO 178
Izod Impact, Notched	0.260 J/cm	0.487 ft-lb/in	ASTM D256
Izod Impact, Unnotched	1.70 J/cm	3.18 ft-lb/in	ASTM D4812
Izod Impact, Notched (ISO)	2.00 kJ/m <sup>2</sup>	0.952 ft-lb/in <sup>2</sup>	80*10*4; ISO 180/1A
Izod Impact, Unnotched (ISO)	17.0 kJ/m <sup>2</sup>	8.09 ft-lb/in <sup>2</sup>	80*10*4; ISO 180/1U
Dart Drop, Total Energy	5.00 J	3.69 ft-lb	Instrumented Impact Energy @ peak; ASTM D3763
Coefficient of Friction, Dynamic	0.25	0.25	ASTM D3702 Modified
Coefficient of Friction, Static	0.17	0.17	ASTM D3702 Modified
K (wear) Factor	20.1 x 10 <sup>-8</sup> mm <sup>3</sup> /N-M	10.0 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	55.8 Åµm/m-Å°C	31.0 Åµin/in-Å°F	ASTM E 831
	@Temperature -40.0 - 40.0 Å°C	@Temperature -40.0 - 104 Å°F	
	56.0 Åµm/m-Å°C	31.1 Åµin/in-Å°F	ISO 11359-2
	@Temperature -40.0 - 40.0 Å°C	@Temperature -40.0 - 104 Å°F	
CTE, linear, Transverse to Flow	52.0 Åµm/m-Å°C	28.9 Åµin/in-Å°F	ISO 11359-2
	@Temperature -40.0 - 40.0 Å°C	@Temperature -40.0 - 104 Å°F	
	52.2 Åµm/m-Å°C	29.0 Åµin/in-Å°F	ASTM E 831
	@Temperature -40.0 - 40.0 Å°C	@Temperature -40.0 - 104 Å°F	
Deflection Temperature at 0.46 MPa (66 psi)	239 Å°C	462 Å°F	Flatw 80*10*4 sp=64mm; ISO 75/Bf
	256 Å°C	493 Å°F	
	@Thickness 3.20 mm	@Thickness 0.126 in	unannealed; ASTM D648
Deflection Temperature at 1.8 MPa (264 psi)	136 Å°C	277 Å°F	Flatw 80*10*4 sp=64mm; ISO 75/Af

Thermal Properties	Metric	English	Comments
	137A C	270A F	unannealed; ASTM D648
	@Thickness 3.20 mm	@Thickness 0.126 in	

## Contact Songhan Plastic Technology Co.,Ltd.

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