

## SABIC Innovative Plastics LNP THERMOCOMP SH1100A PA12

Category : Polymer , Thermoplastic , Nylon , Nylon 12

### Material Notes:

LNP\* Thermocomp\* SH1100A is a Nylon 12, High Specific Gravity compound containing proprietary fillers.

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_SABIC-Innovative-Plastics-LNP-THERMOCOMP-SH1100A-PA12.php](http://www.lookpolymers.com/polymer_SABIC-Innovative-Plastics-LNP-THERMOCOMP-SH1100A-PA12.php)

Physical Properties	Metric	English	Comments
Specific Gravity	11.0 g/cc	11.0 g/cc	ASTM D792
Moisture Absorption	0.0300 %	0.0300 %	50% RH, 24 hrs; ASTM D570
	0.0500 %	0.0500 %	23Â°C / 50% RH; ISO 62
Linear Mold Shrinkage, Flow	0.0030 - 0.0050 cm/cm @Time 86400 sec	0.0030 - 0.0050 in/in @Time 24.0 hour	ASTM D955
Linear Mold Shrinkage, Transverse	0.0030 - 0.0050 cm/cm @Time 86400 sec	0.0030 - 0.0050 in/in @Time 24.0 hour	ASTM D955

Mechanical Properties	Metric	English	Comments
Tensile Strength at Break	19.0 MPa	2760 psi	Type I, 5 mm/min; ASTM D638
Elongation at Break	0.50 %	0.50 %	Type I, 5 mm/min; ASTM D638
	0.50 %	0.50 %	5 mm/min; ISO 527
Tensile Modulus	4.73 GPa	686 ksi	1 mm/min; ISO 527
	11.16 GPa	1619 ksi	5 mm/min; ASTM D638
Flexural Strength	38.0 MPa	5510 psi	1.3 mm/min, 50 mm span; ASTM D790
	38.0 MPa	5510 psi	ISO 178
Flexural Yield Strength	42.0 MPa	6090 psi	1.3 mm/min, 50 mm span; ASTM D790
Flexural Modulus	8.70 GPa	1260 ksi	2 mm/min; ISO 178
	10.9 GPa	1580 ksi	1.3 mm/min, 50 mm span; ASTM D790
Izod Impact, Notched	0.650 J/cm	1.22 ft-lb/in	ASTM D256
Izod Impact, Unnotched	0.880 J/cm	1.65 ft-lb/in	ASTM D4812
Izod Impact, Notched (ISO)	11.0 kJ/mÂ²	5.23 ft-lb/inÂ²	80*10*4; ISO 180/1A

Mechanical Properties	Metric	English	Comments
Dart Drop, Total Energy	4.00 J @Temperature 23.0 Â°C	2.95 ft-lb @Temperature 73.4 Â°F	ASTM D3763
Impact Test	1.00 J	0.738 ft-lb	Multiaxial Impact; ISO 6603

Thermal Properties	Metric	English	Comments
CTE, linear, Parallel to Flow	31.0 Âµm/m-Â°C @Temperature -30.0 - 30.0 Â°C	17.2 Âµin/in-Â°F @Temperature -22.0 - 86.0 Â°F	ASTM D696
CTE, linear, Transverse to Flow	31.0 Âµm/m-Â°C @Temperature -30.0 - 30.0 Â°C	17.2 Âµin/in-Â°F @Temperature -22.0 - 86.0 Â°F	ASTM D696
Deflection Temperature at 0.46 MPa (66 psi)	160 Â°C	320 Â°F	Flatw 80*10*4 sp=64mm; ISO 75/Bf
	161 Â°C @Thickness 3.20 mm	322 Â°F @Thickness 0.126 in	unannealed; ASTM D648
Deflection Temperature at 1.8 MPa (264 psi)	129 Â°C	264 Â°F	Flatw 80*10*4 sp=64mm; ISO 75/Af
	122 Â°C @Thickness 3.20 mm	252 Â°F @Thickness 0.126 in	unannealed; ASTM D648

## Contact Songhan Plastic Technology Co.,Ltd.

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