

## SABIC Innovative Plastics LNP THERMOCOMP SF004S PA12

Category : Polymer , Thermoplastic , Nylon , Nylon 12

### Material Notes:

LNP\* Thermocomp\* SF004S is a compound based on Nylon 12 containing 20% glass fiber. Added features include: Heat Stabilized, Healthcare

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_SABIC-Innovative-Plastics-LNP-THERMOCOMP-SF004S-PA12.php](http://www.lookpolymers.com/polymer_SABIC-Innovative-Plastics-LNP-THERMOCOMP-SF004S-PA12.php)

Physical Properties	Metric	English	Comments
Specific Gravity	1.17 g/cc	1.17 g/cc	ASTM D792
Density	1.17 g/cc	0.0423 lb/in <sup>3</sup>	ASTM D792
Moisture Absorption	0.140 %	0.140 %	50% RH, 24 hrs; ASTM D570
	0.190 %	0.190 %	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	0.0080 - 0.010 cm/cm	0.0080 - 0.010 in/in	ASTM D955
	@Time 86400 sec	@Time 24.0 hour	

Mechanical Properties	Metric	English	Comments
Tensile Strength at Break	80.0 MPa	11600 psi	5 mm/min; ISO 527
	86.0 MPa	12500 psi	Type I, 5 mm/min; ASTM D638
Elongation at Break	2.5 %	2.5 %	5 mm/min; ISO 527
	2.7 %	2.7 %	Type I, 5 mm/min; ASTM D638
Tensile Modulus	5.21 GPa	756 ksi	1 mm/min; ISO 527
	5.40 GPa	783 ksi	5 mm/min; ASTM D638
Flexural Strength	104 MPa	15100 psi	1.3 mm/min, 50 mm span; ASTM D790
	116 MPa	16800 psi	ISO 178
Flexural Yield Strength	131 MPa	19000 psi	1.3 mm/min, 50 mm span; ASTM D790
Flexural Modulus	4.45 GPa	645 ksi	2 mm/min; ISO 178
	4.60 GPa	667 ksi	1.3 mm/min, 50 mm span; ASTM D790

<b>Mechanical Properties</b>	<b>Metric</b>	<b>English</b>	<b>Comments</b>
Izod Impact, Unnotched	5.93 J/cm	11.1 ft-lb/in	ASTM D4812
Izod Impact, Notched (ISO)	6.00 kJ/m <sup>2</sup>	2.86 ft-lb/in <sup>2</sup>	80*10*4; ISO 180/1A
Izod Impact, Unnotched (ISO)	35.0 kJ/m <sup>2</sup>	16.7 ft-lb/in <sup>2</sup>	80*10*4; ISO 180/1U
Dart Drop, Total Energy	11.0 J @Temperature 23.0 Â°C	8.11 ft-lb @Temperature 73.4 Â°F	ASTM D3763
Impact Test	4.00 J	2.95 ft-lb	Multiaxial Impact; ISO 6603

<b>Thermal Properties</b>	<b>Metric</b>	<b>English</b>	<b>Comments</b>
CTE, linear, Parallel to Flow	39.0 Âµm/m-Â°C @Temperature -30.0 - 30.0 Â°C	21.7 Âµin/in-Â°F @Temperature -22.0 - 86.0 Â°F	ASTM D696
CTE, linear, Transverse to Flow	10.6 Âµm/m-Â°C @Temperature -30.0 - 30.0 Â°C	5.89 Âµin/in-Â°F @Temperature -22.0 - 86.0 Â°F	ASTM D696
Deflection Temperature at 0.46 MPa (66 psi)	170 Â°C	338 Â°F	Flatw 80*10*4 sp=64mm; ISO 75/Bf
	176 Â°C @Thickness 3.20 mm	349 Â°F @Thickness 0.126 in	unannealed; ASTM D648
Deflection Temperature at 1.8 MPa (264 psi)	158 Â°C	316 Â°F	Flatw 80*10*4 sp=64mm; ISO 75/Af
	166 Â°C @Thickness 3.20 mm	331 Â°F @Thickness 0.126 in	unannealed; ASTM D648

## Contact Songhan Plastic Technology Co.,Ltd.

Website : www.lookpolymers.com

Email : sales@lookpolymers.com

Tel : +86 021-51131842

Mobile : +86 13061808058

Skype : lookpolymers

Address : United North Road 215,Fengxian District, Shanghai City,China