

## SABIC Innovative Plastics LNP Thermocomp IFB33 PA 6/12

Category : Polymer , Thermoplastic , Nylon , Nylon 612 , Nylon 612, Glass Fiber Filler

### Material Notes:

LNP\* Thermocomp\* IFB33 is a compound based on Nylon 6/12 resin containing Glass Fiber. This data was supplied by SABIC-IP for the Americas region.

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_SABIC-Innovative-Plastics-LNP-Thermocomp-IFB33-PA-612.php](http://www.lookpolymers.com/polymer_SABIC-Innovative-Plastics-LNP-Thermocomp-IFB33-PA-612.php)

Physical Properties	Metric	English	Comments
Density	1.30 g/cc	0.0470 lb/in <sup>3</sup>	ASTM D 792
	1.30 g/cc	0.0470 lb/in <sup>3</sup>	ISO 1183
Moisture Absorption at Equilibrium	0.10 %	0.10 %	50% RH; ASTM D 570
	@Time 86400 sec	@Time 24.0 hour	
Linear Mold Shrinkage, Flow	0.0066 cm/cm	0.0066 in/in	ISO 294
	@Time 86400 sec	@Time 24.0 hour	
	0.0060 - 0.0080 cm/cm	0.0060 - 0.0080 in/in	ASTM D 955
	@Time 86400 sec	@Time 24.0 hour	
Linear Mold Shrinkage, Transverse	0.015 cm/cm	0.015 in/in	ISO 294
	@Time 86400 sec	@Time 24.0 hour	
	0.014 - 0.016 cm/cm	0.014 - 0.016 in/in	ASTM D 955
	@Time 86400 sec	@Time 24.0 hour	

Mechanical Properties	Metric	English	Comments
Tensile Strength at Break	89.0 MPa	12900 psi	ASTM D 638
Tensile Strength, Yield	34.0 MPa	4930 psi	ASTM D 638
Elongation at Break	22 %	22 %	ASTM D 638
Tensile Modulus	6.71 GPa	973 ksi	1 mm/min; ISO 527
	10.34 GPa	1500 ksi	50 mm/min; ASTM D 638
Flexural Strength	131 MPa	19000 psi	ASTM D 790
	138 MPa	20000 psi	ISO 178
Flexural Modulus	4.82 GPa	699 ksi	ASTM D 790
	5.30 GPa	769 ksi	ISO 178

Mechanical Properties	Metric	English	Comments
Izod Impact, Notched	0.830 J/cm @Temperature 23.0 Â°C	8.995 ft-lb/in @Temperature 73.4 Â°F	ASTM D 256
Izod Impact, Unnotched	3.84 J/cm @Temperature 23.0 Â°C	7.19 ft-lb/in @Temperature 73.4 Â°F	ASTM D 4812
Izod Impact, Notched (ISO)	4.00 kJ/mÂ² @Temperature 23.0 Â°C	1.90 ft-lb/inÂ² @Temperature 73.4 Â°F	80*10*4; ISO 180/1A
Izod Impact, Unnotched (ISO)	25.0 kJ/mÂ² @Temperature 23.0 Â°C	11.9 ft-lb/inÂ² @Temperature 73.4 Â°F	80*10*4; ISO 180/1U

Thermal Properties	Metric	English	Comments
CTE, linear, Parallel to Flow	79.2 Âµm/m-Â°C	44.0 Âµin/in-Â°F	ASTM E 831
	@Temperature -40.0 - 40.0 Â°C	@Temperature -40.0 - 104 Â°F	
	80.0 Âµm/m-Â°C	44.4 Âµin/in-Â°F	ISO 11359-2
	@Temperature -40.0 - 40.0 Â°C	@Temperature -40.0 - 104 Â°F	
CTE, linear, Transverse to Flow	46.8 Âµm/m-Â°C	26.0 Âµin/in-Â°F	ASTM E 831
	@Temperature -40.0 - 40.0 Â°C	@Temperature -40.0 - 104 Â°F	
Deflection Temperature at 0.46 MPa (66 psi)	47.0 Âµm/m-Â°C	26.1 Âµin/in-Â°F	ISO 11359-2
	@Temperature -40.0 - 40.0 Â°C	@Temperature -40.0 - 104 Â°F	
Deflection Temperature at 0.46 MPa (66 psi)	203 Â°C	397 Â°F	Flatw 80*10*4 sp=64mm; ISO 75/Bf
	203 Â°C @Thickness 3.20 mm	397 Â°F @Thickness 0.126 in	unannealed; ASTM D 648
Deflection Temperature at 1.8 MPa (264 psi)	189 Â°C	372 Â°F	Flatw 80*10*4 sp=64mm; ISO 75/Af
	201 Â°C @Thickness 3.20 mm	394 Â°F @Thickness 0.126 in	unannealed; ASTM D 648

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