

## SABIC Innovative Plastics LNP THERMOCOMP DF0049E PC

Category : Polymer , Thermoplastic , Polycarbonate (PC)

### Material Notes:

LNP\* Thermocomp\* DF0049E is a compound based on Polycarbonate resin containing 20% Glass Fiber. Added features of this material include: Easy Molding, Flame Retardant.

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_SABIC-Innovative-Plastics-LNP-THERMOCOMP-DF0049E-PC.php](http://www.lookpolymers.com/polymer_SABIC-Innovative-Plastics-LNP-THERMOCOMP-DF0049E-PC.php)

Physical Properties	Metric	English	Comments
Density	1.38 g/cc	0.0499 lb/in <sup>3</sup>	ASTM D792
	1.38 g/cc	0.0499 lb/in <sup>3</sup>	ISO 1183
Moisture Absorption	0.100 %	0.100 %	50% RH, 24 hrs; ASTM D570
Linear Mold Shrinkage, Flow	0.0030 - 0.0050 cm/cm	0.0030 - 0.0050 in/in	ASTM D955
	@Time 86400 sec	@Time 24.0 hour	
	0.0042 cm/cm	0.0042 in/in	ISO 294
	@Time 86400 sec	@Time 24.0 hour	
Linear Mold Shrinkage, Transverse	0.0060 - 0.0080 cm/cm	0.0060 - 0.0080 in/in	ASTM D955
	@Time 86400 sec	@Time 24.0 hour	
	0.0070 cm/cm	0.0070 in/in	ISO 294
	@Time 86400 sec	@Time 24.0 hour	

Mechanical Properties	Metric	English	Comments
Tensile Strength at Break	101 MPa	14600 psi	ASTM D638
	102 MPa	14800 psi	ISO 527
Tensile Strength, Yield	102 MPa	14800 psi	ASTM D638
	102 MPa	14800 psi	ISO 527
Elongation at Break	3.1 %	3.1 %	ISO 527
	8.8 %	8.8 %	ASTM D638
Elongation at Yield	2.8 %	2.8 %	ISO 527
	2.9 %	2.9 %	ASTM D638
Tensile Modulus	7.38 GPa	1070 ksi	1 mm/min; ISO 527

Mechanical Properties	7.58 GPa Metric	1100 ksi English	50 mm/min; ASTM D638 Comments
Flexural Strength	165 MPa	23900 psi	ASTM D790
	165 MPa	23900 psi	ISO 178
Flexural Modulus	6.00 GPa	870 ksi	ISO 178
	6.20 GPa	899 ksi	ASTM D790
Izod Impact, Notched	0.900 J/cm	1.69 ft-lb/in	ASTM D256
Izod Impact, Unnotched	8.33 J/cm	15.6 ft-lb/in	ASTM D4812
Izod Impact, Notched (ISO)	10.0 kJ/m <sup>2</sup>	4.76 ft-lb/in <sup>2</sup>	80*10*4; ISO 180/1A
Izod Impact, Unnotched (ISO)	56.0 kJ/m <sup>2</sup>	26.6 ft-lb/in <sup>2</sup>	80*10*4; ISO 180/1U
Dart Drop, Total Energy	18.0 J	13.3 ft-lb	Instrumented Impact Energy @ peak; ASTM D3763
Impact Test	5.00 J	3.69 ft-lb	Multiaxial Impact; ISO 6603

Thermal Properties	Metric	English	Comments
CTE, linear, Parallel to Flow	7.20 Åµm/m-Å°C	4.00 Åµin/in-Å°F	ASTM E 831
	@Temperature -40.0 - 40.0 Å°C	@Temperature -40.0 - 104 Å°F	
	68.2 Åµm/m-Å°C	37.9 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	1.80 Åµm/m-Å°C	1.00 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)	25.4 Åµm/m-Å°C	14.1 Åµin/in-Å°F	ISO 11359-2
	@Temperature -40.0 - 40.0 Å°C	@Temperature -40.0 - 104 Å°F	
Deflection Temperature at 0.46 MPa (66 psi)	146 Å°C	295 Å°F	Flatw 80*10*4 sp=64mm; ISO 75/Bf
	146 Å°C @Thickness 3.20 mm	295 Å°F @Thickness 0.126 in	unannealed; ASTM D648
Deflection Temperature at 1.8 MPa (264 psi)	143 Å°C	289 Å°F	Flatw 80*10*4 sp=64mm; ISO 75/Af
	142 Å°C @Thickness 3.20 mm	288 Å°F @Thickness 0.126 in	unannealed; ASTM D648

## **Contact Songhan Plastic Technology Co.,Ltd.**

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