

SABIC Innovative Plastics LNP THERMOCOMP IC006 PA 6/12

Category : Polymer , Thermoplastic , Nylon , Nylon 612

Material Notes:

LNP* THERMOCOMP* IC006 is a compound based on Nylon 6/12 resin containing 30% Carbon Fiber. Added features of this material include: Electrically Conductive.

Order this product through the following link:

http://www.lookpolymers.com/polymer_SABIC-Innovative-Plastics-LNP-THERMOCOMP-IC006-PA-612.php

Physical Properties	Metric	English	Comments
Density	1.21 g/cc	0.0437 lb/in ³	ASTM D792
	1.21 g/cc	0.0437 lb/in ³	ISO 1183
Moisture Absorption	0.100 %	0.100 %	50% RH, 24 hrs; ASTM D570
Linear Mold Shrinkage, Flow	0.0025 cm/cm	0.0025 in/in	ISO 294
	@Time 86400 sec	@Time 24.0 hour	
Linear Mold Shrinkage, Transverse	0.0020 - 0.0040 cm/cm	0.0020 - 0.0040 in/in	ASTM D955
	@Time 86400 sec	@Time 24.0 hour	
Linear Mold Shrinkage, Transverse	0.010 - 0.012 cm/cm	0.010 - 0.012 in/in	ASTM D955
	@Time 86400 sec	@Time 24.0 hour	
Linear Mold Shrinkage, Transverse	0.011 cm/cm	0.011 in/in	ISO 294
	@Time 86400 sec	@Time 24.0 hour	

Mechanical Properties	Metric	English	Comments
Tensile Strength at Break	200 MPa	29000 psi	ISO 527
	201 MPa	29200 psi	ASTM D638
Tensile Strength, Yield	200 MPa	29000 psi	ISO 527
	201 MPa	29200 psi	ASTM D638
Elongation at Break	2.0 %	2.0 %	ISO 527
	2.2 %	2.2 %	ASTM D638
Elongation at Yield	2.0 %	2.0 %	ISO 527
	2.2 %	2.2 %	ASTM D638
Tensile Modulus	17.92 GPa	2599 ksi	50 mm/min; ASTM D638

Mechanical Properties	18.76 GPa Metric	2721 ksi English	1 mm/min: ISO 527 Comments
Flexural Strength	262 MPa	38000 psi	ASTM D790
	284 MPa	41200 psi	ISO 178
Flexural Modulus	12.41 GPa	1800 ksi	ASTM D790
	15.4 GPa	2230 ksi	ISO 178
Izod Impact, Notched	0.740 J/cm	1.39 ft-lb/in	ASTM D256
Izod Impact, Unnotched	7.90 J/cm	14.8 ft-lb/in	ASTM D4812
Izod Impact, Notched (ISO)	7.00 kJ/m ²	3.33 ft-lb/in ²	80*10*4; ISO 180/1A
Izod Impact, Unnotched (ISO)	48.0 kJ/m ²	22.8 ft-lb/in ²	80*10*4; ISO 180/1U
Dart Drop, Total Energy	8.00 J	5.90 ft-lb	Instrumented Impact Energy @ peak; ASTM D3763
Impact Test	3.00 J	2.21 ft-lb	Multiaxial Impact; ISO 6603

Thermal Properties	Metric	English	Comments
CTE, linear, Parallel to Flow	77.4 Åµm/m-Å°C	43.0 Åµin/in-Å°F	ASTM E 831
	@Temperature -40.0 - 40.0 Å°C	@Temperature -40.0 - 104 Å°F	
	78.0 Åµm/m-Å°C	43.3 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	19.8 Åµm/m-Å°C	11.0 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)	213 Å°C	415 Å°F	Flatw 80*10*4 sp=64mm; ISO 75/Bf
	212 Å°C	414 Å°F	
	@Thickness 3.20 mm	@Thickness 0.126 in	unannealed; ASTM D648
Deflection Temperature at 1.8 MPa (264 psi)	197 Å°C	387 Å°F	Flatw 80*10*4 sp=64mm; ISO 75/Af
	197 Å°C	387 Å°F	
	@Thickness 3.20 mm	@Thickness 0.126 in	unannealed; ASTM D648

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