

## SABIC Innovative Plastics LNP THERMOCOMP UC006H PPA

Category : Polymer , Thermoplastic , Polyphthalamide (PPA)

### Material Notes:

LNP THERMOCOMP\* UC006H is a compound based on Polyphthalamide resin containing 30% Carbon Fiber. Added features of this material include: Electrically Conductive, Healthcare.

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_SABIC-Innovative-Plastics-LNP-THERMOCOMP-UC006H-PPA.php](http://www.lookpolymers.com/polymer_SABIC-Innovative-Plastics-LNP-THERMOCOMP-UC006H-PPA.php)

Physical Properties	Metric	English	Comments
Density	1.32 g/cc	0.0477 lb/in <sup>3</sup>	ISO 1183
	1.324 g/cc	0.04783 lb/in <sup>3</sup>	ASTM D792
Moisture Absorption	0.310 %	0.310 %	50% RH, 24 hrs; ASTM D570
	0.660 %	0.660 %	23 <sup>o</sup> C / 50% RH; ISO 62
Linear Mold Shrinkage, Flow	0.0016 cm/cm	0.0016 in/in	ISO 294
	@Time 86400 sec	@Time 24.0 hour	
	0.0020 cm/cm	0.0020 in/in	ASTM D955
	@Time 86400 sec	@Time 24.0 hour	
Linear Mold Shrinkage, Transverse	0.0060 cm/cm	0.0060 in/in	ASTM D955
	@Time 86400 sec	@Time 24.0 hour	
	0.0062 cm/cm	0.0062 in/in	ISO 294
	@Time 86400 sec	@Time 24.0 hour	

Mechanical Properties	Metric	English	Comments
Tensile Strength at Break	263 MPa	38100 psi	ISO 527
	287 MPa	41600 psi	ASTM D638
Elongation at Break	1.3 %	1.3 %	ISO 527
	1.5 %	1.5 %	ASTM D638
Tensile Modulus	26.11 GPa	3787 ksi	50 mm/min; ASTM D638
	28.16 GPa	4084 ksi	1 mm/min; ISO 527
Flexural Strength	413 MPa	59900 psi	ISO 178
	419 MPa	60800 psi	ASTM D790

Flexural Modulus Mechanical Properties	22.32 GPa Metric	3237 ksi English	ISO 178 Comments
	22.63 GPa	3282 ksi	ASTM D790
Izod Impact, Notched	0.740 J/cm	1.39 ft-lb/in	ASTM D256
Izod Impact, Unnotched	8.27 J/cm	15.5 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)	51.0 kJ/m <sup>2</sup>	24.3 ft-lb/in <sup>2</sup>	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	2.00 J	1.48 ft-lb	Multiaxial Impact; ISO 6603
Coefficient of Friction, Dynamic	0.27	0.27	ASTM D3702 Modified
Coefficient of Friction, Static	0.21	0.21	ASTM D3702 Modified
K (wear) Factor	12.1 x 10 <sup>-8</sup> mm <sup>3</sup> /N-M	6.00 x 10 <sup>-10</sup> in <sup>3</sup> - min/ft-lb-hr	Washer; ASTM D3702 Modified

Thermal Properties	Metric	English	Comments
CTE, linear, Parallel to Flow	18.0 Åµm/m-Å°C	10.0 Åµin/in-Å°F	ASTM E 831
	@Temperature -40.0 - 40.0 Å°C	@Temperature -40.0 - 104 Å°F	
	18.9 Åµm/m-Å°C	10.5 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	39.6 Åµm/m-Å°C	22.0 Åµin/in-Å°F	ASTM E 831
	@Temperature -40.0 - 40.0 Å°C	@Temperature -40.0 - 104 Å°F	
	40.2 Åµm/m-Å°C	22.3 Åµin/in-Å°F	ISO 11359-2
	@Temperature -40.0 - 40.0 Å°C	@Temperature -40.0 - 104 Å°F	
Deflection Temperature at 1.8 MPa (264 psi)	285 Å°C	545 Å°F	unannealed; ASTM D648
	@Thickness 3.20 mm	@Thickness 0.126 in	

## Contact Songhan Plastic Technology Co.,Ltd.

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