

## SABIC Innovative Plastics LNP THERMOCOMP UX04509 PPA

Category : Polymer , Thermoplastic , Polyphthalamide (PPA)

### Material Notes:

LNP\* Thermocomp\* UX04509 is a compound based on Polyphthalamide resin containing 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-UX04509-PPA.php](http://www.lookpolymers.com/polymer_SABIC-Innovative-Plastics-LNP-THERMOCOMP-UX04509-PPA.php)

Physical Properties	Metric	English	Comments
Specific Gravity	1.38 g/cc	1.38 g/cc	ASTM D792
Density	1.37 g/cc	0.0495 lb/in <sup>3</sup>	ASTM D792
Moisture Absorption	0.190 %	0.190 %	50% RH, 24 hrs; ASTM D570
	0.290 %	0.290 %	23 <sup>o</sup> C / 50% RH; ISO 62
Linear Mold Shrinkage, Flow	0.0020 - 0.0050 cm/cm	0.0020 - 0.0050 in/in	ASTM D955
	@Time 86400 sec	@Time 24.0 hour	
Linear Mold Shrinkage, Transverse	0.0050 - 0.0080 cm/cm	0.0050 - 0.0080 in/in	ASTM D955
	@Time 86400 sec	@Time 24.0 hour	

Mechanical Properties	Metric	English	Comments
Tensile Strength at Break	293 MPa	42500 psi	5 mm/min; ISO 527
	307 MPa	44500 psi	Type I, 5 mm/min; ASTM D638
Tensile Strength, Yield	293 MPa	42500 psi	5 mm/min; ISO 527
	307 MPa	44500 psi	Type I, 5 mm/min; ASTM D638
Elongation at Break	1.1 %	1.1 %	5 mm/min; ISO 527
	1.2 %	1.2 %	Type I, 5 mm/min; ASTM D638
Elongation at Yield	1.1 %	1.1 %	5 mm/min; ISO 527
	1.2 %	1.2 %	Type I, 5 mm/min; ASTM D638
Tensile Modulus	34.44 GPa	4995 ksi	1 mm/min; ISO 527
	36.82 GPa	5340 ksi	50 mm/min; ASTM D638
Flexural Strength	424 MPa	61500 psi	1.3 mm/min, 50 mm span; ASTM D790
	425 MPa	61600 psi	ISO 178

Mechanical Properties	Metric	English	Comments
Flexural Yield Strength	42.4 MPa	61500 psi	1.3 mm/min, 50 mm span; ASTM D790
Flexural Modulus	28.83 GPa	4181 ksi	2 mm/min; ISO 178
	29.3 GPa	4250 ksi	1.3 mm/min, 50 mm span; ASTM D790
Izod Impact, Notched	0.690 J/cm	1.29 ft-lb/in	ASTM D256
Izod Impact, Unnotched	7.23 J/cm	13.5 ft-lb/in	ASTM D4812
Izod Impact, Notched (ISO)	7.00 kJ/m <sup>2</sup>	3.33 ft-lb/in <sup>2</sup>	80*10*4; ISO 180/1A
Izod Impact, Unnotched (ISO)	47.0 kJ/m <sup>2</sup>	22.4 ft-lb/in <sup>2</sup>	80*10*4; ISO 180/1U
Dart Drop, Total Energy	6.00 J @Temperature 23.0 Â°C	4.43 ft-lb @Temperature 73.4 Â°F	ASTM D3763
Impact Test	2.00 J	1.48 ft-lb	Multiaxial Impact; ISO 6603

Thermal Properties	Metric	English	Comments
CTE, linear, Parallel to Flow	28.0 Âµm/m-Â°C @Temperature -30.0 - 30.0 Â°C	15.6 Âµin/in-Â°F @Temperature -22.0 - 86.0 Â°F	ASTM D696
CTE, linear, Transverse to Flow	27.0 Âµm/m-Â°C @Temperature -30.0 - 30.0 Â°C	15.0 Âµin/in-Â°F @Temperature -22.0 - 86.0 Â°F	ASTM D696
Deflection Temperature at 0.46 MPa (66 psi)	301 Â°C	574 Â°F	Flatw 80*10*4 sp=64mm; ISO 75/Bf
	303 Â°C @Thickness 3.20 mm	577 Â°F @Thickness 0.126 in	unannealed; ASTM D648
Deflection Temperature at 1.8 MPa (264 psi)	283 Â°C	541 Â°F	Flatw 80*10*4 sp=64mm; ISO 75/Af
	289 Â°C @Thickness 3.20 mm	552 Â°F @Thickness 0.126 in	unannealed; ASTM D648

## Contact Songhan Plastic Technology Co.,Ltd.

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