

## PolyOne Therma-Tech™ NN-3000 TC Polyamide 66 (Nylon 66)

Category : Polymer , Thermoplastic , Nylon , Nylon 66

### Material Notes:

Therma-Tech™ Thermal Management Compounds have been engineered to combine the heat transfer and cooling capabilities of metals with the design freedom, weight reduction and cost advantages of thermoplastics. These materials provide the benefits of proprietary conductive additive technologies and the performance of select engineering thermoplastic resins. Therma-Tech compounds have been shown to improve thermal conductivity up to 100-times that of conventional plastics and can be used in a wide range of thermal management applications. Information provided by PolyOne

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_PolyOne-Therma-Tech-NN-3000-TC-Polyamide-66-Nylon-66.php](http://www.lookpolymers.com/polymer_PolyOne-Therma-Tech-NN-3000-TC-Polyamide-66-Nylon-66.php)

Physical Properties	Metric	English	Comments
Specific Gravity	1.38 g/cc	1.38 g/cc	ASTM D792
Water Absorption	0.60 % @Thickness 3.18 mm	0.60 % @Thickness 0.125 in	@ 24 hrs; ASTM D570
Linear Mold Shrinkage, Flow	0.0070 - 0.0080 cm/cm	0.0070 - 0.0080 in/in	ASTM D955

Mechanical Properties	Metric	English	Comments
Tensile Strength, Yield	75.8 MPa	11000 psi	Type I, 5.1 mm/min; ASTM D638
Elongation at Break	0.70 %	0.70 %	Type I, 5.1 mm/min; ASTM D638
Tensile Modulus	10.3 GPa	1490 ksi	Type I, 5.1 mm/min; ASTM D638
Flexural Strength	82.7 MPa	12000 psi	ASTM D790
Flexural Modulus	9.24 GPa	1340 ksi	ASTM D790
Izod Impact, Notched	0.430 J/cm @Thickness 6.35 mm, Temperature 23.0 °C	0.806 ft-lb/in @Thickness 0.250 in, Temperature 73.4 °F	Injection Molded; ASTM D256A

Thermal Properties	Metric	English	Comments
Thermal Conductivity	3.50 W/m-K	24.3 BTU-in/hr-ft <sup>2</sup> -°F	ASTM C177
Deflection Temperature at 0.46 MPa (66 psi)	249 °C @Thickness 6.35 mm	480 °F @Thickness 0.250 in	Unannealed; ASTM D648
Deflection Temperature at 1.8 MPa (264 psi)	238 °C @Thickness 6.35 mm	460 °F @Thickness 0.250 in	Unannealed; ASTM D648

Electrical Properties	Metric	English	Comments
Volume Resistivity	1.00e+6 - 1.00e+7 ohm-cm	1.00e+6 - 1.00e+7 ohm-cm	ASTM D257
Surface Resistance	1e+05 - 1.00e+6 ohm	1e+05 - 1.00e+6 ohm	ASTM D257

Processing Properties	Metric	English	Comments
Melt Temperature	282 - 299 °C	540 - 570 °F	
Mold Temperature	65.6 - 93.3 °C	150 - 200 °F	

Descriptive Properties	Value	Comments
Features	Electrically Conductive	
	Thermally Conductive	
Forms	Pellets	
Generic Material	Nylon 66	
Generic Name	Polyamide 66 (Nylon 66)	
Processing Method	Injection Molding	
Regional Availability	Africa & Middle East	
	Asia Pacific	
	Europe	
	North America	
	South America	
Uses	Automotive Applications	
	Automotive Under the Hood	
	Consumer Applications	
	Electrical/Electronic Applications	
	Housings	
	Industrial Applications	

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

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