Therma-Tech™ TT6600-5008 EC Anthracite

Polyamide 66

PolyOne Corporation

Message:

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.

General Information			
Features	Electrically Conductive Thermally Conductive		
Uses	Automotive Applications Automotive Under the Hood Consumer Applications Electrical/Electronic Applications Housings Industrial Applications		
Forms	Pellets		
Processing Method	Injection Molding		
Physical	**Nominal Value**	**Unit**	**Test Method**
Specific Gravity	1.61	g/cm³	ISO 1183
Molding Shrinkage - Flow	0.40 to 0.60	%	ISO 294-4
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Modulus [1] (23°C)	12000	MPa	ISO 527
Tensile Strength [2] (Break, 23°C)	70.0	MPa	ISO 527
Tensile Elongation [3] (Break, 23°C)	0.50 to 1.0	%	ISO 527
Flexural Modulus [4] (23°C)	11000	MPa	ISO 178
Flexural Strength [5] (23°C)	100	MPa	ISO 178
Impact	**Nominal Value**	**Unit**	**Test Method**
Charpy Notched Impact Strength	2.5	kJ/m²	ISO 179/1eA
Charpy Unnotched Impact Strength	9.0	kJ/m²	ISO 179/1eU
Thermal	**Nominal Value**	**Unit**	**Test Method**
Heat Deflection Temperature			
0.45 MPa, Unannealed	260	°C	ISO 75-2/B
1.8 MPa, Unannealed	245	°C	ISO 75-2/A
Thermal Conductivity			
23°C [6]	2.0 to 2.5	W/m/K	
23°C [7]	13 to 16	W/m/K	ASTM E1461

Electrical	Nominal Value	Unit	Test Method
Surface Resistivity	< 1.0E+6	ohms	IEC 60093
Flammability	**Nominal Value**	**Unit**	**Test Method**
Flame Rating (1.60 mm)	HB		UL 94
Glow Wire Flammability Index			IEC 60695-2-12
0.800 mm	960	°C	
1.60 mm	960	°C	
3.00 mm	960	°C	
Injection	**Nominal Value**	**Unit**	
Drying Temperature	80.0	°C	
Drying Time	4.0	hr	
Suggested Max Moisture	0.20	%	
Processing (Melt) Temp	275 to 300	°C	
Mold Temperature	80.0 to 105	°C	
NOTE			
1.	Type I, 1.0 mm/min		
2.	Type I, 50 mm/min		
3.	Type I, 50 mm/min		
4.	10 mm/min		
5.	10 mm/min		
6.	Through Plane with Modified Transient Plane Source, C-Therm TCi™		
7.	In-Plane		

Recommended distributors for this material

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