Therma-Tech™ TT9200-5010 EC Anthracite

Polyphenylene Sulfide

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	
Filler / Reinforcement	Glass fiber reinforced material
Features	Conductivity Heat conduction
Uses	Electrical/Electronic Applications Industrial application Parts under the hood of a car Application in Automobile Field Shell Consumer goods application field
RoHS Compliance	RoHS compliance
Forms	Particle
Processing Method	Extrusion Injection molding

Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.79	g/cm³	ISO 1183
Molding Shrinkage - Flow (Injection Molded)	0.10 - 0.30	%	ISO 294-4
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Modulus [1]	17500	MPa	ISO 527
Tensile Stress (Break)	64.0	MPa	ISO 527-2/1/50
Tensile Elongation [2] (Break)	0.30 - 0.50	%	ISO 527
Flexural Modulus [3] (Injection Molded)	16000	MPa	ISO 178
Flexural Strength [4] (Injection Molded)	90.0	MPa	ISO 178
Impact	**Nominal Value**	**Unit**	**Test Method**
Charpy Notched Impact Strength (23°C)	2.8	kJ/m²	ISO 179
Charpy Unnotched Impact Strength (23°C)	6.3	kJ/m²	ISO 179
Thermal	**Nominal Value**	**Unit**	**Test Method**
Heat Deflection Temperature (1.8 MPa, Unannealed)	240	°C	ISO 75-2/A

Thermal Conductivity [5]	2.0 - 2.4	W/m/K	
Electrical	**Nominal Value**	**Unit**	**Test Method**
Surface Resistivity	< 1.0E+4	ohms	IEC 60093
Flammability	**Nominal Value**	**Unit**	**Test Method**
Flame Rating			UL 94
0.8 mm	V-0		UL 94
1.5 mm	5VA		UL 94
3.0 mm	5VA		UL 94
Glow Wire Flammability Index			IEC 60695-2-12
0.8 mm	960	°C	IEC 60695-2-12
1.6 mm	960	°C	IEC 60695-2-12
3.0 mm	> 960	°C	IEC 60695-2-12
Glow Wire Ignition Temperature			IEC 60695-2-13
1.6 mm	> 960	°C	IEC 60695-2-13
3.0 mm	> 960	°C	IEC 60695-2-13
Injection	**Nominal Value**	**Unit**	
Processing (Melt) Temp	310 - 340	°C	
Mold Temperature	140 - 170	°C	
NOTE			
1.	Type 1, 1.0mm/min		
2.	Type 1, 50mm/min		
3.	10 mm/min		
4.	10 mm/min		
5.	Through Plane with Modified Transient Plane Source technique, C-Therm TCi™		

Recommended distributors for this material

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