

AUTOMOTIVE SOLUTIONS

IMPROVE ADVANCED DRIVER ASSISTANCE SYSTEM DESIGN WITH THERMALLY CONDUCTIVE FORMULATIONS

Thermal management is an important consideration in the design of Advanced Driver Assistance Systems (ADAS). High performance polymers are required to uniformly dissipate heat and protect sensitive electronics, such as sensors, cameras and electronic control units (ECUs), against hotspot formation. Housings made of aluminum have long been used for dissipating heat away from the electronics, but aluminum is relatively heavy. Could your housing design be improved to allow for better overall system performance? Injection-moldable Therma-Tech™ enables you to design a housing with the required thermal conductivity at a lighter weight than aluminum. Because this material is injection-moldable, you can add more electronics inside the housing and even reduce the device's overall footprint.

	THERMA-TECH TT3300-5001EC GREY	THERMA-TECH TT6600-5001EC GREY	THERMA-TECH TT6600-5008EC ANTHRACITE	THERMA-TECH TT9200-5003EC GREY	THERMA-TECH TT9200-5003EC MID ANTHRACITE
Applications	Sensor, Camera & ECU Housings	Sensor, Camera & ECU Housings	Sensor, Camera & ECU Housings	Sensor, Camera & ECU Housings	Sensor, Camera & ECU Housings
Defining Features	Thermally & Electrically Conductive	Thermally & Electrically Conductive	Thermally & Electrically Conductive	Thermally & Electrically Conductive	Thermally & Electrically Conductive
Filler/Reinforcement	Glass Fiber	Glass Fiber	Glass Fiber	Glass Fiber	Glass Fiber
Surface Resistivity	<1.0E+4 ohms	<1.0E+5 ohms	<1.0E+6 ohms	<1.0E+4 ohms	<1.0E+4 ohms
Through-Plane Thermal Conductivity	2.0 to 2.4 W/m/K (14 to 17 Btu*in/hr/ft²/°F) (with modified transient plane source)	4.5 to 5.5 W/m/K (31 to 38 Btu*in/hr/ft²/°F)	2.0 to 2.5 W/m/K (14 to 17 Btu*in/hr/ft²/°F) (with modified transient plane source)	3.5 to 4.0 W/m/K (24 to 28 Btu*in/hr/ft²/°F)	3.5 to 4.0 W/m/K (24 to 28 Btu*in/hr/ft²/°F)
In-Plane Thermal Conductivity	13 to 16 W/m/K (90 to 110 Btu*in/hr/ft²/°F)	19 to 21 W/m/K (130 to 150 Btu*in/hr/ft²/°F)	13 to 16 W/m/K (90 to 110 Btu*in/hr/ft²/°F)	16 to 18 W/m/K (110 to 120 Btu*in/hr/ft²/°F)	16 to 18 W/m/K (110 to 120 Btu*in/hr/ft²/°F)



HOW THERMA-TECH MATERIAL MAKES THE DIFFERENCE IN ADAS SENSORS, CAMERAS AND ECUS

Uniform heat dissipation – Therma-Tech material uniformly dissipates heat, reducing hot spot formation on sensors and ECU surfaces.

Adding electronics, minimizing footprint –

Using Therma-Tech material for your housing allows you to add more electronics without concerns of excess heat impacting device functionality.

Lightweighting & easier processing –Therma-Tech material is lighter weight and easier to process than aluminum yet offers the necessary thermal management performance needed for ADAS components.

Reduced total program life cost –

The lightweighting and part consolidation benefits of using Therma-Tech material can help you achieve overall system cost reductions.



To learn more, please
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