

## AUTOMOTIVE SOLUTIONS

# EMI/RFI SHIELDING & STATIC DISSIPATIVE FORMULATIONS FOR ADVANCED DRIVER ASSISTANCE SYSTEMS

Advanced Driver Assistance Systems (ADAS), comprised of sensitive electronics such as sensors, cameras and electronic control units (ECUs), require high-performance materials to protect them from static buildup, EMI/RFI interference and other issues. What if you could design the needed performance characteristics right into the housing rather than using conductive painting or vacuum metallization? Injection-moldable Stat-Tech™ offers the necessary shielding performance and boosts design freedom, so that more components can be housed together without cross talk. At the same time, this material makes the housing lighter and more compact than aluminum.

	<b>STAT-TECH AS-10CF/000 BLACK</b>	<b>STAT-TECH ST3200-0010 NH FR BLACK</b>	<b>STAT-TECH ST9620-0020 ES RED</b>	<b>STAT-TECH NN-40CF/000 NH FRV0 NATURAL</b>
<b>Applications</b>	Sensor, Camera & ECU Housings	Sensor, Camera & ECU Housings	Sensor, Camera & ECU Housings	Sensor, Camera & ECU Housings
<b>Defining Features</b>	Antistatic Conductive	EMI Shielding Flame Retardant	EMI Shielding	Good Chemical Resistance High Stiffness
<b>Filler/ Reinforcement</b>	Carbon Fiber, 10% by Wt	—	Nickel-Coated Carbon Fiber	Carbon Fiber, 40% by Wt
<b>Surface Resistivity</b>	1.0E+2 to 1.0E+6 ohms	1.5E+4 ohms	1.0E+2 to 1.0E+4 ohms	1.0E+2 to 1.0E+5 ohms
<b>Shielding Effectiveness (10GHz, 1/8" thickness)</b>	—	—	61 dB	70 dB



## HOW STAT-TECH MATERIAL MAKES THE DIFFERENCE IN AUTOMOTIVE ADAS SENSORS, CAMERAS AND ECUS

**Protection from static buildup** – Stat-Tech material reduces static buildup with surface resistivity between  $1.0E+2$  ohms and  $1.0E+6$  ohms, minimizing sparks from damaging nearby electrical components, especially those near fuel storage.

**Integrated EMI/RFI shielding** – Stat-Tech material has integrated EMI/RFI shielding to prevent crosstalk between components, with effectiveness up to 70 dB (10GHz, 1/8" thickness).

**High performance without secondary operations** – When using Stat-Tech material, painting and vacuum metallization are not necessary in order to achieve the performance you need from your ADAS systems, therefore cutting down on the processing times and costs associated with using aluminum.

**Design freedom** – Stat-Tech material is injection moldable, enabling function integration and thin wall housing construction, without compromising dimensional stability.

**Adding electronics, minimizing footprint** – Using Stat-Tech material enables part consolidation by allowing multiple sensors, cameras and ECUs to sit in the same housing without performance concerns.

**Lightweighting** – Through the combination of thin wall housing construction and part consolidation, using Stat-Tech material in sensors, cameras and ECUs enables overall system weight reduction.

To learn more, visit [avient.com](http://avient.com) or call +1.844.4AVIENT (1.844.428.4368).

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