

# Technical Bulletin

## RFI / EMI Shielding Coatings: Where are they used?

Shielding Paints are conductive protective coatings applied to casings and products that stop Radio Frequency Interference (RFI) and Electromagnetic interference (EMI) reaching the sensitive electronics within by creating a conductive shield. This conductive shield also prevents any EMI and RFI generated within by the product escaping.

### Where is RFI Shielding Paint Used?

Conductive coatings are used in a wide range of sectors in the Electronics World. These Sectors include

#### Military & Aerospace

Communications, satellites, door and room shielding, piping, conduits, HVAC ducts, avionics, GPS and weapon systems

#### Transport

Automobile cabins, railway optical networks, runway lighting in airports, traffic surveillance systems, automobile control systems in the dashboard and GPS Systems

#### Communications

Telephone systems, mobile phones, GPS systems, satellite dishes, in flight phone systems and antennas

#### Instrumentation and Automation

Conveyor systems, control drives, robotic interfaces, motors, compressors, pumps and power Supplies

#### Medical

TENS (Transcutaneous electrical nerve stimulation) electrodes, PET, MRI and CAT scanning systems and artificial hearts

#### Computers

Disk drives, VDUs, printers, keyboards, composite patch channels, batteries, notebooks and Ethernet switches.

In fact, shielding of EMI / RFI is mandatory for all electronics and it can be found in all areas where electronics are found.



### What are EMI/RFI Shielding coatings?

Conductive coatings are filled with metallic particles; the metal in the paint is conductive which therefore makes the product the paint is applied to conductive.



*Without and with RFI / EMI shielding*

This conductivity offers shielding to the product within from RFI / EMI interference.

### Why Use RFI Shielding Paints?

Electronic devices and equipments need to be shielded for telecommunications, technological, and health reasons and are the basis for governmental, industrial, and commercial shielding requirements.

### SCH Technologies offer

- Conformal coating Subcontract Services
- Global supply of Conformal Coating Application Equipment
- Electronics Process Materials including RFI Shielding Coatings, Epoxy Compounds and Lubricants and Greases
- Conformal Coating Training courses Consultation & troubleshooting

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