ELECTRONICS AND ADVANCED ASSEMBLY

# DOWSIL™ EC-6601
## Electrically Conductive Adhesive

### Silicones for strong electromagnetic shielding

Introducing our newest patented innovation, DOWSIL™ EC-6601 Electrically Conductive Adhesive – providing stable electromagnetic shielding over its long lifetime.

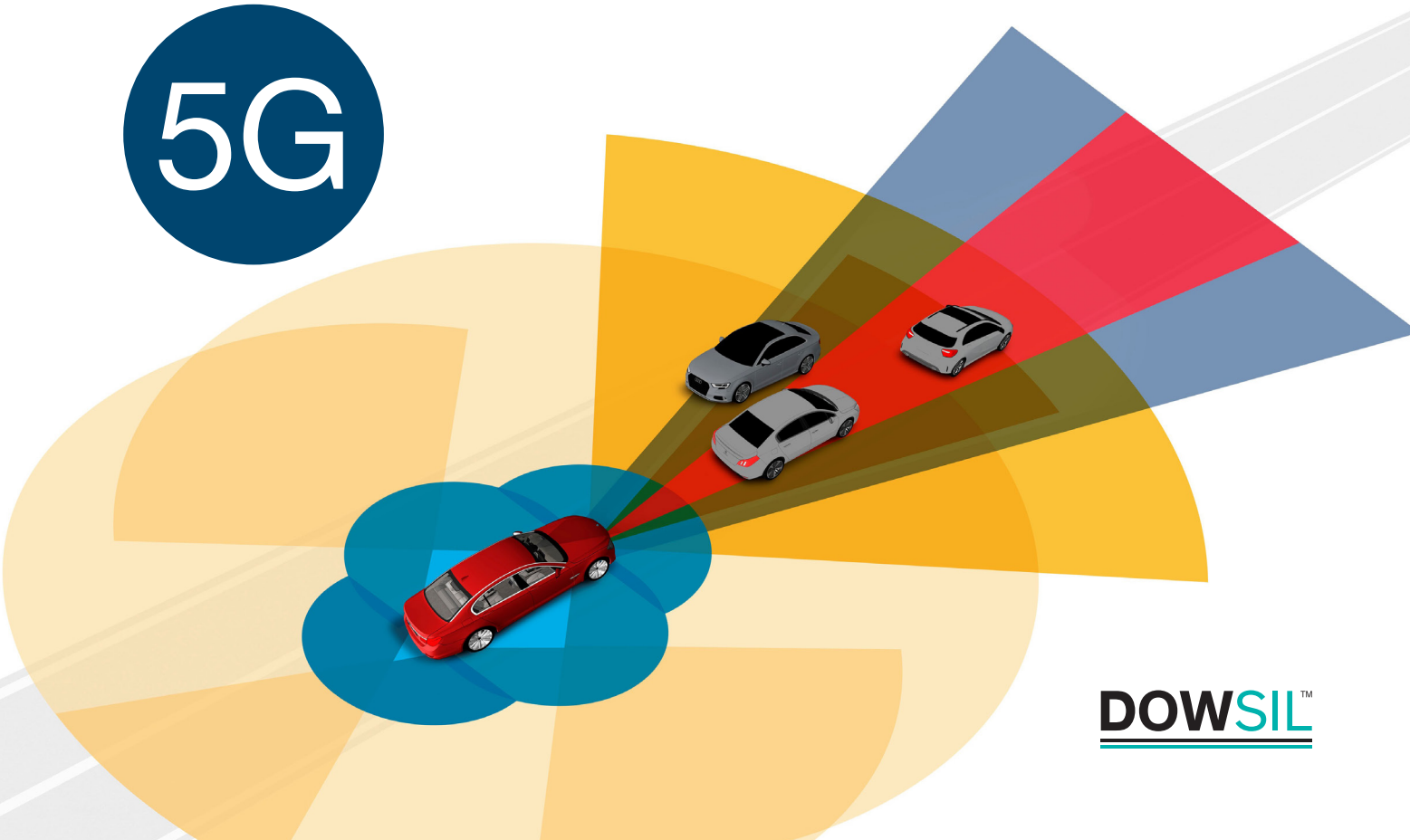
This unique adhesive offers:

- Strong shielding across a wide range of frequencies
- Greater than 150 percent elongation to enable flexibility at joints
- Strong adhesion to many substrates
- Reliable performance, with durable mechanical and conductive properties
- Excellent corrosion resistance

This one-part, RTV-cure silicone material is intended for use as an adhesive, formed-in-place gaskets (FIPG) and cured-in-place gaskets (CIPG).

Compared to a competitive benchmark, DOWSIL™ EC-6601 Electrically Conductive Adhesive shows stronger adhesion, more conductivity, better material strength, increased flexibility and longer shelf life.

PCB warpage is a common challenge that's brought about by temperature cycling, and sometimes during module assembly. This silicone material offers a solution. It allows for the PCBs to maintain electrically conductive contact with the heatsink through the distinct elongation properties.




DOWSIL™

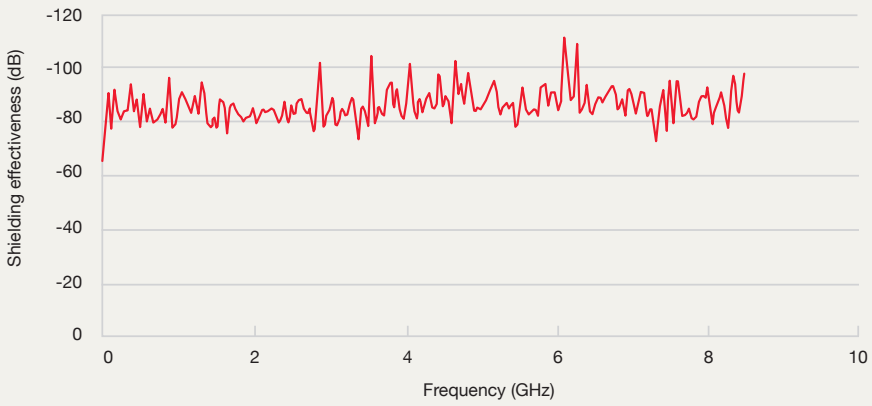
## Applications

Sealant or adhesive – electrically conductive material for grounding and shielding

**Radar** **Battery** **Camera** **Base station**

Connectivity, reliability and tight safety regulations increase the need for high-performance EMI shielding solutions. EMI shielding can be designed into different levels: from the printed circuit board … to the module … to the system design and assembly. This silicone adhesive can withstand many compression-tension cycles and still maintain a strong conductive path. Pre- and post-tension shielding effectiveness remains stable.

## Shielding effectiveness of DOWSIL™ EC-6601 Electrically Conductive Adhesive




| DOWSIL™ EC-6601 Electrically Conductive Adhesive | |
|---|---|
| Color | Tan |
| Cured density (g/cc) | 3.3 |
| Initial extrusion rate (g/min) (0.27 MPa x 18G x1/2" SS needle) | 2.2 |
| Shelf life | 6 months |
| Storage condition | Freezer |
| Skin over time (min) | 30 |
| Durometer (Shore A) | 80 |
| Tensile strength (MPa) | 1.6 |
| Elongation % | >150 |
| Adhesion-tack (MPa) | 0.07 |
| Lap shear adhesion (MPa) - Al @ 100µm | 1.7 |
| Volume resistivity (Ohm-cm) | 27E-03 |
| Shielding effectiveness 1kHz - 3 GHz (dB) | 85 |

## We are your EMI partner

We're ready to collaborate and help you design your solutions. We bring to the table:

- Deep technical experience in material design and engineering
- Expertise in electrically conductive fillers
- Delivery of multiple product forms (adhesives, low-modulus elastomers, CIPG, FIPG, emulsions, coatings, etc.)
- Innovative toolbox of key intermediates, polymers and additives that can be modified and formulated to meet your needs
- Supply chain integration
- Proven performance in demanding semiconductor markets

To find out how we can support your applications, visit our website: **consumer.dow.com/pcb**

**Images:** 54590742663, 41418811121, 40683049933, 54346544176



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