



**DOW**

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

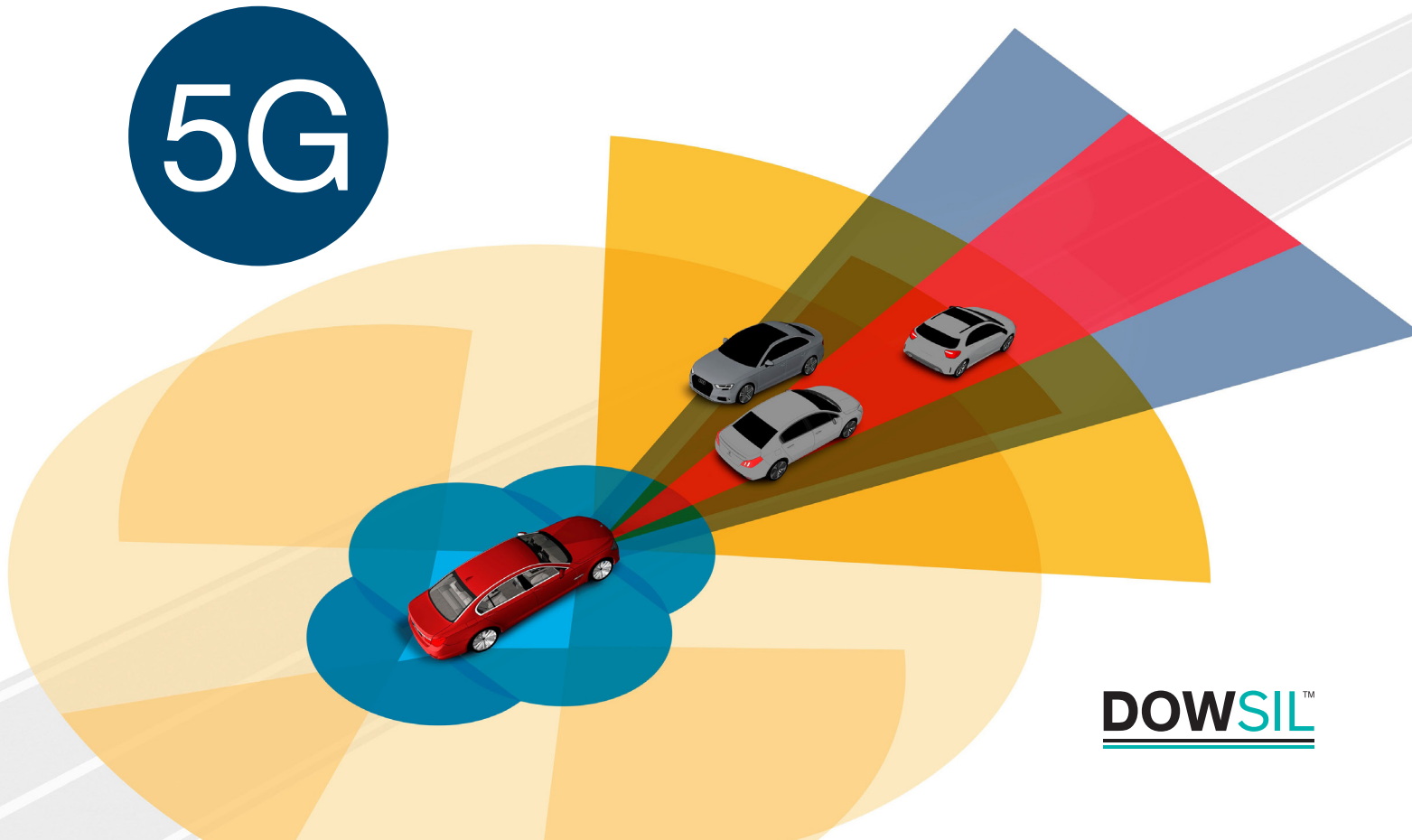
This one-part, RTV-cure silicone material is intended for use as an adhesive, formed-in-place gaskets (FIPG) and cured-in-place gaskets (CIPG).

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.



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**DOWSIL™**

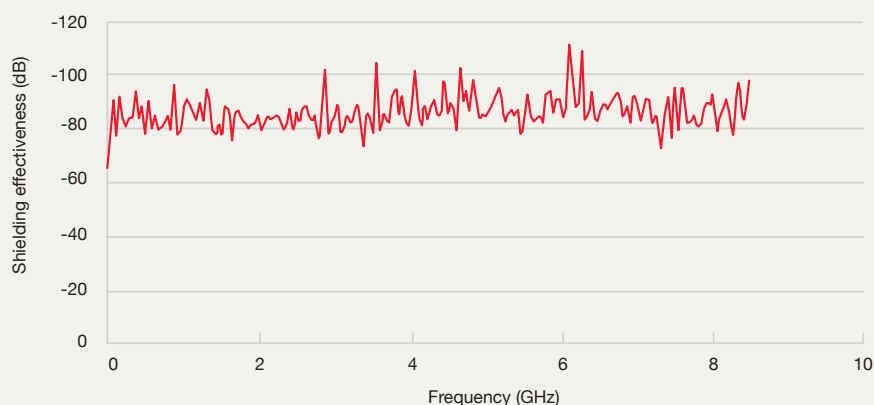
## Applications

Sealant or adhesive – electrically conductive material for grounding and shielding



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](http://consumer.dow.com/pcb)

Images: 54590742663, 41418811121, 40683049933, 54346544176

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