



The Dow Chemical Company
Global Dow Center
2211 H.H. Dow Way
Midland, MI 48674

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Dow Spotlights Thermally and Electrically Conductive Materials at MWC Barcelona, Premieres Entry into EMI Shielding Market

Market leader in silicone technologies adding electrically conductive silicones with EMI shielding to award-winning portfolio of thermally conductive materials

MIDLAND, Mich. – February 20, 2019 – Dow Performance Silicones, a global leader in silicones, silicon-based technology and innovation, will deliver a presentation at the Mobile World Congress (MWC) Barcelona about conductive materials for advanced technologies in communications, transportation, and consumer devices. As the long-established leader in thermally conductive silicones, Dow is now applying its deep expertise to develop advanced silicone solutions that combine electrical conductivity with protection against electromagnetic interference (EMI) – a growing challenge for engineers. The presentation, titled “Conductive Materials: The Next Chapter of an Innovation Powerhouse,” will be given by Dorab Bhagwagar, senior product development specialist, and Rogier Reinders, global marketing director, on Thursday, Feb. 28 from 11:30 a.m. to 12:30 p.m. CET in NEXTech Theatre F, Hall 8.0.

“Advanced technologies such as 5G networks, electric and autonomous vehicles with their many sensor configurations, and consumer devices for the Internet of Things (IoT) present electrical engineers with a host of challenges,” said Reinders. “At MWC Barcelona, our presentation will describe how silicone-based solutions, with their highly-tunable properties, offer key advantages over other types of conductive materials. Dow is well-known as the leader in thermally-conductive silicones, and for both its technical knowledge and application expertise. We’re also a partner and an innovator that’s meeting the needs of our customers by entering the EMI shielding market. We invite those who are working on IoT consumer devices, advanced sensors, and 5G communications equipment to attend our presentation as we highlight thermally conductive solutions and premiere Dow’s electrically conductive EMI elastomers.”

Electromagnetic interference that can disrupt circuits and limit electromagnetic compatibility (EMC) is a growing challenge for designers of printed circuit board (PCB) architectures and modules for consumers, communications and transportation. As electronics become more compact and have fewer components, higher-density packaging increases the risk of interference or electromagnetic pollution. Designers must also account for a proliferation of connected devices that can interfere with each other. 5G networks that are increasing the amount and rate of data transfers, increased regulations, and critical applications – such as advanced driver assistance systems (ADAS) – that need zero-defect performance also represent significant engineering challenges.

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As a backward-integrated chemistry powerhouse with proven experience in conductive materials, Dow creates unique polymers with a combination of features and highly-tunable properties for wireless applications or devices that emit electromagnetic fields. The company's advanced silicones are an excellent choice for meeting the varied challenges posed by today's technologies because silicones maintain their properties over time and provide a precise balance of mechanical, electrical, and processing properties.

In addition to its EMI shielding capabilities, Dow will showcase the company's broad and growing portfolio of thermally-conductive silicone technologies, which include bare die solutions that are becoming increasingly popular with designers of graphics processing units (GPUs). The company will spotlight its novel gap filler technology, a thermal gel with high conductivity for wireless telecommunications infrastructure that needs to support the higher power densities required by the spectrum of 5G frequencies.

Dow will highlight two of its new thermally-conductive silicone technologies:

- DOWSIL™ TC-3015 Thermal Gel is a one-part, heat cure, silicone-based material with good reworkability. This innovative material can be peeled off easily, completely and without residue during the rework process.
- DOWSIL™ TC-5888 Thermally Conductive Compound combines excellent thermal management with a flow profile that enhances productivity. This thermally-conductive material facilitates the design of slimmer, smaller devices that need to deliver higher performance and functionality.

Dow's portfolio of silicone technologies for applications in the consumer, communications and transportation industries is available worldwide.

About Dow Performance Silicones

Dow Performance Silicones, a business unit of The Dow Chemical Company, delivers a portfolio of performance-enhancing solutions to serve the diverse needs of customers and industries around the world. The business uses innovative silicon-based technology to provide solutions and ingredients to customers in commercial construction and high-performance building, consumer goods, silicone elastomers, and pressure sensitive industries. As a global leader in innovation and silicone technology, we are committed to bringing new and proven solutions to the market that do more for our customers and continue to improve the lives of consumers worldwide. Visit [consumer.dow.com](https://www.consumer.dow.com) to learn more.

About Dow

The Dow Chemical Company (Dow) combines science and technology knowledge to develop premier materials science solutions that are essential to human progress. Dow has one of the strongest and broadest toolkits in the industry, with robust technology, asset integration, scale and competitive capabilities that enable it to address complex global issues. Dow's market-driven, industry-leading portfolio of advanced materials, industrial intermediates, and plastics businesses deliver a broad range of differentiated technology-based products and solutions for customers in high-growth markets such as packaging, infrastructure, and consumer care. Dow is a subsidiary of DowDuPont (NYSE: DWDP), a holding company comprised of Dow and DuPont with the intent to form three strong, independent, publicly traded companies in agriculture, materials science and specialty sectors. More information can be found at www.dow.com.

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For further information contact:

Isabelle Vanderstichelen

Dow Performance Silicones

+32.64.889.350

isabelle.vanderstichelen@dow.com

Jo Duran

AH&M Marketing Communications

+1.413.448.2260, Ext. 200

jduran@ahminc.com



Advanced technologies such as 5G networks, electric and autonomous vehicles with their many sensor configurations, and consumer devices for the Internet of Things (IoT) present electrical engineers with a host of challenges. Dow's silicone-based thermally and electrically conductive material solutions, with their highly-tunable properties, offer key advantages over other types of conductive materials.