Dow addresses EMI shielding challenges with novel flexible, electrically-conductive silicone adhesive

*MIDLAND, Mich. – May 8, 2019* — Dow introduced here today at The Battery Show Europe 2019 (Hall 1, Stand 349) new DOWSIL™ EC-6601 Electrically Conductive Adhesive, a next-generation material engineered for reliable performance and electromagnetic compatibility (EMC) in demanding electrical and electronics applications in the transportation, communications and consumer markets. This novel adhesive combines strong electromagnetic interference (EMI) shielding capabilities across a wide range of frequencies with durable mechanical and conductive properties over time, underscoring how Dow is further growing its highly differentiated EMI shielding solutions portfolio.

“Today’s most innovative electrical and electronics technologies need a strong adhesive with stable EMI shielding across a broad frequency range, including the millimeter range for 5G,” said Jeroen Bello, global senior marketing manager for new technologies at Dow. “Our new DOWSIL™ EC-6601 Electrically Conductive Adhesive provides this, along with long-lasting mechanical and electrical performance, and the ability to bond to a variety of substrates. With our innovative customer-centric approach, formulation expertise, and supply chain integration, Dow is a proven collaboration partner with the growing portfolio of solutions needed to address today’s toughest EMI challenges.”

DOWSIL™ EC-6601 Electrically Conductive Adhesive is uniquely formulated to form strong bonds to many substrates and has greater than 150 percent elongation to enable flexibility at the joints. With its longer shelf life, better material strength, increased flexibility, stronger adhesion, and greater electrical conductivity, this innovative new adhesive provides key advantages over other conductive elastomers, a category of materials that is used widely in today’s printed circuit board and advanced systems assembly market.

In the transportation industry, for example, the electrification of vehicles is driving increased demand for greater connectivity, reliability and compliance with tight safety regulations that require high-performance EMI shielding. Applications such as electronic control units (ECU), cameras, radar, LiDAR, sensors and batteries all need dependable performance over time with zero defects. The new vehicle architectures for autonomous vehicles are also raising the bar for EMI shielding because of their many sensor configurations.

In the communications space, 5G base stations and optical interconnects that need greater data transfers at faster speeds are challenging EMC experts. Consumer electronics with high-density packaging and smart architectures are also susceptible to electronic pollution that can disrupt or disable circuits. DOWSIL™ EC-6601 Electrically Conductive Adhesive provides the stable EMI shielding that is required for these and other applications while maintaining its properties and electrical conductivity.
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DOWSIL™ EC-6601 Electrically Conductive Adhesive can be used as an adhesive, formed-in-place gaskets (FIPG), or cure-in-place gaskets (CIPG). This silicone elastomer has an optimized dispense rate and withstands high temperatures, humidity, vibration, compression and tensile stress. With its high elongation, the material can stretch to support the movement of a joint when used as an adhesive, FIPG or CIPG. DOWSIL™ EC-6601 Electrically Conductive Adhesive contains premium fillers, provides excellent corrosion resistance and is the latest innovation from an industry leader with more than 15 years of experience in electrically-conductive silicones for advanced assembly.

To learn more about Dow’s growing EMI shielding capabilities and plans to introduce new innovative solutions in this area, customers can contact Dow.

About Dow Performance Silicones

Dow Performance Silicones 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 to learn more.

About Dow

Dow (NYSE: DOW) combines one of the broadest technology sets in the industry with asset integration, focused innovation and global scale to achieve profitable growth and become the most innovative, customer centric, inclusive and sustainable materials science company. Dow’s portfolio of performance materials, industrial intermediates and plastics businesses delivers a broad range of differentiated science-based products and solutions for our customers in high-growth segments, such as packaging, infrastructure and consumer care. Dow operates 113 manufacturing sites in 31 countries and employs approximately 37,000 people. Dow delivered pro forma sales of approximately $50 billion in 2018. References to Dow or the Company mean Dow Inc. and its subsidiaries. For more information, please visit www.dow.com or follow @DowNewsroom on Twitter.

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DOWSIL™ EC-6601 Electrically Conductive Adhesive is a flexible, silicone adhesive that combines reliable performance with EMI shielding. This next-generation material is used in demanding applications like radar, LiDAR, sensors and batteries.