Press Information

Dow Performance Silicones
2200 W. Salzburg Rd.
PO Box 994
Auburn MI 48611

www.dow.com/automotive

Dow Performance Silicones Debuts Innovative Silicone-based Anti-squeak Additive for Automotive Interior Applications at CHINAPLAS 2018

SHANGHAI – April 24, 2018 – Dow Performance Silicones, a global business unit of DowDuPont Specialty Products Division, is launching here at CHINAPLAS 2018 (in DuPont's stand #7.2D61) DOW CORNING™ HMB-1903 Masterbatch, a unique, new silicone-based additive technology developed to eliminate squeaking in automotive interior components. This new, patented anti-squeak additive immediately and permanently reduces coefficient of friction (COF) in polycarbonate/acrylonitrile-butadiene-styrene (PC/ABS) parts to avoid noise in the vehicle cabin. It can replace time-consuming, labor-intensive post-treatments to improve cost control, design freedom and productivity. As the first in a new product family, DOW CORNING™ HMB-1903 Masterbatch broadens the company's already extensive portfolio of silicone solutions that extend properties, enhance processing and reinforce materials.

"Major emerging trends in electric and autonomous vehicles are emphasizing the importance of noise minimization in automotive interiors," said Christophe Paulo, Industrial and Consumer strategic marketer, EMEA, Transportation and Advanced Polymers, Dow Performance Silicones. "Noise, vibration and harshness, or NVH, become more noticeable in ultra-quiet electric vehicles, and more intrusive in self-driving cars that will be used for entertainment and relaxation, not just transportation. Our new DOW CORNING™ HMB-1903 Masterbatch directly addresses NVH by offering automotive OEMs and tiers a fresh approach. It combines outstanding anti-squeak performance with cost-effectiveness and processing efficiency. It's the latest example of how Dow Performance Silicones is delivering the advanced material technologies our customers need to succeed."

High Performance at Low Loadings

DOW CORNING™ HMB-1903 Masterbatch delivers high anti-squeak performance that remains stable throughout the useful life of the part. Tests show it achieved an anti-squeak risk priority number (RPN) rating below 3 at a typical low loading of 4 wt%. A RPN below 3 indicates the material is not squeaking and does not present any risk for long-term squeaking issues.

Further, DOW CORNING™ HMB-1903 Masterbatch achieved an impressively low score for impulse, which represents the number of stick-slip phenomena appearing during the squeaking test. These phenomena, caused by friction between two surfaces, are typically the source of the squeaking noise. The new Dow Performance Silicones additive dramatically reduced the impulse value when compared to pure, non-modified PC/ABS blends.

Greater Design Freedom and Efficiency

As an additive incorporated in the PC/ABS resin, DOW CORNING™ HMB-1903 Masterbatch helps to streamline part production and keep costs down compared to competitive anti-squeak solutions. These include post-treatment with felt, lubricants and coatings, and replacement of PC/ABS with specialized anti-squeak resins. Post-treatments add time, expense and complexity to the production process and can interfere with design freedom. Intricate parts may need to be simplified to permit complete application of the post-treatment. In addition, lubricants can wear off over time, while coatings require hand application

and post-curing. Coatings are also very sensitive to impact and can develop micro-cracks that affect anti-squeak performance. Niche anti-squeak resins can cost twice as much as standard PC/ABS.

The new masterbatch is supplied as easy-to-use pellets that simplify handling. Once added to the resin, it provides immediate anti-squeak properties to molded parts so they can move to the next production step straight away. Elimination of anti-squeak post-treatment further accelerates cycle times and raises productivity.

Retention of Resin Properties

A major advantage of using DOW CORNING™ HMB-1903 Masterbatch is the retention of important PC/ABS mechanical properties, including room-temperature impact resistance, which remains the same as that of pure resin. Tensile modulus, tensile strength and elongation at break are also maintained at a high level. In addition, PC/ABS containing the silicone additive offers an attractive surface appearance that enhances part aesthetics.

In addition to automotive interior applications such as instrument panels and center consoles, the new additive can potentially be used for appliance components such as refrigerator bins and trays and in transportation applications.

About Performance Silicones
Performance Silicones, a unit within Dow's Consumer Solutions business, delivers a portfolio of performance-enhancing solutions to serve the diverse needs of customers and industries around the world. From transportation and lighting to building and construction and chemical manufacturing, Dow's Performance Silicones business helps our customers solve their most challenging problems. As a global leader in innovation and silicon-based technology, we are committed to bringing new solutions to the market that do more for our customers and continue to improve the lives of consumers worldwide. Visit www.dow.com/automotive to learn more.

About DowDuPont Specialty Products Division:
DowDuPont Specialty Products, a division of DowDuPont (NYSE: DWDP), is a global innovation leader with technology-based materials, ingredients and solutions that help transform industries and everyday life. Our employees apply diverse science and expertise to help customers advance their best ideas and deliver essential innovations in key markets including electronics, transportation, building and construction, health and wellness, food and worker safety. DowDuPont intends to separate the Specialty Products division into an independent, publicly traded company. More information can be found www.dow-dupont.com.

###

For further information contact:
Isabelle Vanderstichelen
Dow Performance Silicones
+32 64.88.9350
isabelle.vanderstichelen@Dow.com

Amy Godfrey
AH&M Marketing Communications
+1 413.448.2260, Ext. 370
agodfrey@ahminc.com

Dow Performance Silicones Debuts Innovative Silicone-based Anti-squeak Additive for Automotive Interior Applications at CHINAPLAS 2018

PHOTO: DOW CORNING™ HMB-1903 Masterbatch was Developed to Eliminate Squeaking in Automotive Interior Components

Dow Performance Silicones, a global business unit of DowDuPont Specialty Products Division, is launching here at CHINAPLAS 2018 (in DuPont's stand #7.2D61) DOW CORNING™ HMB-1903 Masterbatch, a unique, new silicone-based additive technology developed to eliminate squeaking in automotive interior components. This new, patented anti-squeak additive immediately and permanently reduces coefficient of friction (COF) in polycarbonate/acrylonitrile-butadiene-styrene (PC/ABS) parts to avoid noise in the vehicle cabin. It can replace time-consuming, labor-intensive post-treatments to improve cost control, design freedom and productivity. As the first in a new product family, DOW CORNING™ HMB-1903 Masterbatch broadens the company's already extensive portfolio of silicone solutions that extend properties, enhance processing and reinforce materials.

###