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FOR IMMEDIATE RELEASE March 8, 2018 MEDIA CONTACTS Sean Norton sean.norton@milliken.com 864-503-6582

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Milliken to Launch at NPE 2018 New Technologies for Maximizing the Performance of PP Impact Copolymers for Injection Molding

Milliken Will Also Highlight High-performance Solutions that Make Plastics Clearer, Better and Faster

Spartanburg, S.C. - Milliken & Company will feature its extensive portfolio of additive technologies for improving the clarity, performance and processing of polyolefins at NPE 2018 in booth #S26023. The company will also launch two new products: a unique performance modifier for injection-molded polypropylene (PP) impact copolymers (ICPs), and the latest technology in its Hyperform[®] HPN family of nucleating agents, which is specifically designed to maximize stiffness in PP ICPs. Both of these novel technologies will significantly change the way PP ICPs perform, particularly regarding impact strength, stiffness and melt flow. Further, by improving the physical properties of post-consumer recycled resins, the new performance modifier allows converters to take greater advantage of their cost and sustainability benefits.

Prem Patel, strategy and business development manager for Plastics Additives at Milliken, will give a talk on the new performance modifier at the Plastics Re|Focus Sustainability & Recycling Summit, colocated with NPE 2018. He will discuss the new product's ability to improve impact performance and melt flow of PP, while maintaining stiffness. Patel will also explain how the new technology enables recycled resin to deliver performance comparable to that of virgin materials. His talk will take place on Thursday, May 10, at 10:45 a.m. on Level 3, Room #S330A.

"Milliken's dedication to our customers' success drives our ongoing investment in next-generation additive technologies and solutions for the plastics industry," said Allen Jacoby, vice president Plastics Additives, Milliken. "Our innovations help to solve the most important challenges facing polymer producers, converters, designers and brand owners by delivering breakthrough aesthetics, exceptional material properties, improved efficiency and enhanced sustainability. Milliken will continue to lead by applying our market insights and technological expertise to customers' evolving requirements."

Clearer, Better, Faster

Milliken will showcase at NPE 2018 advanced technologies that address the plastics industry's need for improvements in material clarity, performance and processing.

Clearer: NX[™] UltraClear PP, which is polypropylene clarified with Milliken's Millad[®] NX[™] 8000 clarifier, enhances the aesthetics, clarity and quality of PP applications. This high-performance technology encourages the broader use of PP, which combines high temperature resistance with glass-like transparency, light weight and easy recyclability. Milliken's ClearTint[®] colorants, also to be featured at the booth, are FDA compliant and provide bright, rich and transparent colors to PP applications.

- Better: The new performance modifier improves the impact resistance and melt flow properties of PP ICPs, enhancing their strength and support for cost-effective downgauging, respectively. The new Hyperform HPN nucleator maximizes stiffness, which also enables thinner gauges. Milliken's other Hyperform HPN nucleating agents for PP and polyethylene (PE) will also be showcased at the event. These materials provide an excellent balance of impact resistance and stiffness performance, as well as improved shrinkage control to reduce warpage. Also on display, ClearShield[®] UV absorbers for polyethylene terephthalate (PET) provide exceptional UV protection and improved color stability to extend the shelf life of foods and beverages, personal care products and household cleaners.
- Faster: Millad NX 8000 clarifier enhances productivity by enabling broader use of PP, whose lower processing temperatures increase production speeds in injection molding. Similarly, Hyperform HPN nucleating agents' ability to create a unique crystal orientation in PP and PE shortens cooling times and contributes to higher productivity. Both of these technologies and the new performance modifier are suitable for PP grades with high melt flow, which also facilitates faster cycle times.

Milliken's expanding array of products add significant value to PP, PE and other popular materials used in the packaging, housewares, furniture, industrial, automotive and appliance industries. Representative applications from these sectors will be on display, demonstrating the benefits of Milliken's technologies.

The company's clarifying and nucleating agents will be featured in a wide range of plastic parts to be produced live on the show floor by leading manufacturers of thermoforming, injection molding, extrusion blow molding and compression blow forming machinery. Examples include pharma bottles and ice cream lids with in-mold labels.

NPE 2018 will be held May 7-11 in Orlando, Fla., at the Orange County Convention Center. Milliken technology experts will be available to discuss the company's growing portfolio of high-performance plastics additives, colorants and solutions.

About Milliken

Milliken is an innovation company that has been exploring, discovering, and creating ways to enhance people's lives since 1865. Working from our laboratories, application and development centers around the world, our scientists and engineers create coatings, specialty chemicals, and advanced additive and colorant technologies that transform the way we experience products from automotive plastics to children's art supplies. With expertise across a breadth of disciplines that also includes floor covering and performance materials, the people of Milliken work every day to add true value to people's lives, improve health and safety, and make this world more sustainable. For more information, visit chemical.milliken.com or www.milliken.com.

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PHOTOS

TOP: Hyperform[®] Nucleating Agents and Milliken's New Performance Modifier Offer PP and PE Applications a Unique Balance of Mechanical Properties and Enable a Higher Level of Productivity BOTTOM: Milliken's Millad[®] NX[™] 8000 Clarifier, ClearTint[®] Colorants and NX[™] UltraClear[™] PP Enhance Beauty, Visibility and Quality of a Variety of Plastics Applications

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High resolution photography is available by contacting Amy Godfrey at <u>agodfrey@ahminc.com</u>.