



Joint News Release

BASF Media Contact:

Patricia Presswood
Tel.: (734) 250-3143
Email: patricia.presswood@basf.com

Bemis Media Contact:

Erica Spatz
Tel.: 920-467-5284
Email: erica.spatz@bemismfg.com

BASF and Bemis win SPE Automotive Composites Conference & Expo for the largest known injection molded polyamide hydraulic tank on compact excavators

WYANDOTTE, MI, and SHEBOYGAN FALLS, WI, September 20, 2024 – BASF and Bemis Manufacturing Company have won the Society of Plastics Engineers (SPE) Automotive Composites Conference & Expo (ACCE) award as the “Most Innovative Part” in the process innovation from production part category for their collaboration on the largest known injection molded polyamide hydraulic tanks for compact excavators. By leveraging a combination of injection molding and vibration welding techniques, the team was able to lower part costs by approximately 20% and reduce mass by approximately 5% compared to the traditional roto-molding process while providing a more eco-efficient solution delivering both environmental savings (reductions in life cycle CO₂ emissions) and reducing life cycle cost.

“We needed a way to produce large, complex parts with shorter cycle times, while reducing secondary processing waste,” said Jeff Lallensack, Senior Project Engineer, Bemis Manufacturing. “The BASF team understands our business and their engineering expertise in vibration welding improved the functional performance of the hydraulic tank by successfully containing vibration weld flash during processing.”

The hydraulic tank, which was injection molded and then vibration welded by Bemis Manufacturing, uses a BASF polyamide 6 (PA6) grade, Ultramid® B3WG6 GPX BK23238, reinforced with 30% short glass-fiber. This specific grade of Ultramid provides exceptional vibration weld joint strength and high temperature fatigue strength. Using BASF's Computer Aided Engineering (CAE) expertise, via ULTRASIM® and Burst Failure Index (BFI)-for-weld methodology, the stringent structural part performance requirements were successfully met.

“At BASF, collaborative innovation with our customers, mutual trust and respect and customer-led engineering is crucial to their success as well as ours,” said Ankur Bhosale, Senior Principal Engineer, Performance Materials, BASF Corporation. “BASF's technical expertise via ULTRAJOIN®, and simulation expertise via ULTRASIM and Burst Failure Index (BFI)-for-weld methodology were the key differentiators that were extensively leveraged to surpass stringent performance requirements. In 2024, BASF is celebrating 25 years ULTRASIM. As a team, we made the impossible possible by delivering approximately 20% part cost savings to our customer partners while delivering a more eco-efficient solution. It's a true demonstrator of the power of co-creation.”

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About BASF

BASF Corporation, headquartered in Florham Park, New Jersey, is the North American affiliate of BASF SE, Ludwigshafen, Germany. BASF has approximately 16,000 employees in North America and had sales of \$20.5 billion in 2023. For more information about BASF's North American operations, visit www.basf.com/us.

At BASF, we create chemistry for a sustainable future. We combine economic success with environmental protection and social responsibility. Around 112,000 employees in the BASF Group contribute to the success of our customers in nearly all sectors and almost every country in the world. Our portfolio comprises six segments: Chemicals, Materials, Industrial Solutions, Surface Technologies, Nutrition & Care and Agricultural Solutions. BASF generated sales of €68.9 billion in 2023. BASF shares are traded on the stock exchange in Frankfurt (BAS) and as American Depositary Receipts (BASFY) in the United States. Further information at www.basf.com.

About Bemis Manufacturing Company

Headquartered in Sheboygan Falls, WI, Bemis Manufacturing Company is a family-owned manufacturer of consumer goods and custom injection molding services tracing its roots back to 1901. While best known for their market leading position in toilet seats, Bemis is an innovative and diversified manufacturer, serving consumer, commercial, medical and industrial markets worldwide.

Proud of its role as a US manufacturer, Bemis also has manufacturing facilities in the UK, Mexico, France, and Croatia. For more information, visit Bemis Manufacturing Company at [HOME | Bemis Mfg.](#) and Bemis Contract Group at [Custom Injection Molding Company - Bemis Contract Group](#)