

News Release

BASF launches innovative Ultramid® T6000 grade for electric vehicle applications

- **Flame-retardant Ultramid® T6000 polyphthalamide is used in terminal blocks, providing a new reliable solution for the electric vehicle industry**
- **The new flame-retardant grade enhances safety with excellent thermal shock resistance and electrical isolation**
- **Non-halogenated flame retardant minimizes corrosion risks and meets safety needs**

Shanghai, China - January 13, 2025 - BASF's newly developed flame retardant (FR) grade of Ultramid® T6000 polyphthalamide (PPA) is now used in terminal block application. This upgraded solution replaces non-FR material, enhancing safety for the inverter and motor system in electric vehicles (EVs).

Ultramid® T6000 bridges the gap between traditional PA66 and PA6T, offering superior mechanical and dielectric properties, particularly in humid conditions and at elevated temperatures. Its easy processing and low corrosion on tools make it the preferred choice for complex automotive applications. With its wide range of pre-color options, including vibrant shades, Ultramid® T6000 enhances aesthetic flexibility while maintaining high performance standards.

"As safety becomes increasingly vital in the design and material selection for metal components in EVs, such as wiring terminals and busbars, BASF is committed to developing innovative solutions for the EV industry. Our goal is not only to meet today's design needs but also to equip our customers with the tools to develop cutting-edge technologies that address future technical requirements and safety

standards," said Eng Guan Soh, Vice President, Business Management Engineering Plastics, Performance Materials Asia Pacific, BASF.

The FR grade of Ultramid® T6000 is specifically designed for EV applications, offering exceptional high strength ideal for terminal block use. This innovative material enhances the durability of electrical systems in new energy vehicles by withstanding thermal shock from -40°C to 150°C for 1,000 cycles and provides excellent electrical isolation for terminal blocks and high voltage busbars, significantly improving safety on the vehicle's 800V platform. A standout feature is its non-halogenated flame retardant, which minimizes the risk of metal corrosion and meets stringent safety standards, ensuring protection for vehicle occupants in the event of a fire.

Additionally, its remarkable strength, stiffness, and dimensional stability allow for the creation of complex designs that can endure the rigors of automotive assembly, while also facilitating the integration of multiple functions into single components, ultimately simplifying assembly and enhancing space efficiency in EVs.

About BASF's Performance Materials division

BASF's Performance Materials division is at the forefront of the much-needed sustainability transformation in plastics. Our products are co-created with customers around the globe to bring innovations to major industry sectors such as transportation, consumer goods, industrial applications, and construction. Our R&D focuses on all stages of the plastics journey: Make, Use and Recycle. The MAKE phase is about improving how plastics are made, from product design to the choice of raw materials and the manufacturing process itself. The USE phase enhances plastics' strengths such as light weight, robustness, and thermal resistance. At the end of the product lifecycle, the RECYCLE phase looks at how to close the loop to achieve a circular economy. In 2023, the Performance Materials division achieved global sales of €7.2 billion. Join #ourplasticsjourney at: <https://www.performance-materials.basf.com>

About BASF

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.