

The Battery Show: Kuraray Showcases Advanced Material Solutions with GENESTAR™ PA9T

High-performance materials from Kuraray's GENESTAR™ family pave the way for the production of next-generation EV battery systems.

Hattersheim/Germany, May 26, 2026. Kuraray, the global specialty chemicals company headquartered in Japan, will showcase its unique high-performance polyamides from the GENESTAR™ PA9T family at The Battery Show Europe (Stuttgart, June 9–11, 2026, Booth 3-C76). These material solutions enable battery developers to overcome major challenges in areas such as thermal management, high-voltage safety, and long-term reliability. Materials from the GENESTAR™ PA9T family pave the way for high-performance next-generation battery architectures by addressing overheating issues, providing very high chemical resistance, and enhancing the safety of modern high-voltage battery architectures. At the same time, they facilitate large-scale production even for complex components. Technical experts from Kuraray's GENESTAR Business Unit will be happy to explain to visitors at The Battery Show Europe the wide range of possibilities that high-performance polyamides from the GENESTAR™ PA9T family offer for the design and manufacture of modern EV batteries.

1. Protection against overheating and excessive stress during fast charging

Modern battery technology is increasingly moving toward higher energy densities, ultra-fast charging, and 800- to 1000-V architectures. At the same time, the risk of overheating is rising. Conventional polymers tend to lose their mechanical stability under extreme thermal conditions—specifically in the hotspots of EV batteries. In contrast, the robust materials of the GENESTAR™ PA9T family maintain their stable mechanical properties over a wide temperature range. GENESTAR™ PA9T materials have repeatedly proven their great suitability as components for thermal management.

2. Resistance to aggressive coolants and hydrolysis risks

Modern concepts for efficient battery cooling increasingly use aggressive liquids as coolants, which can lead to severe chemical stress on conventional materials, causing them to swell and ultimately fail prematurely. GENESTAR™ PA9T, on the other hand, exhibits high chemical resistance to various cooling fluids, demonstrates excellent hydrolysis resistance even at high temperatures, and therefore ensures long-term material stability and reliability.

3. Safety even with new high-voltage battery architectures ranging from 800 to 1000 V

Next-generation EV battery systems often operate with high-voltage architectures. Accordingly, materials that still possess excellent insulation properties even at voltages ranging from 800 to 1000

volts are crucial in this context. Preventing leakage currents is also a critical safety factor in high-voltage designs. Materials from the GENESTAR™ PA9T family not only offer outstanding insulation properties—they also feature extremely high tracking resistance: Their Comparative Tracking Index (CTI) far exceeds conventional values. The use of GENESTAR™ PA9T enables the production of high-voltage components that are both compact and lightweight.

4. Very low moisture absorption and maximum dimensional stability

The moisture absorption of GENESTAR™ PA9T is among the lowest of any high-temperature-resistant polyamides. As a result, the material offers excellent dimensional stability and particularly high reliability and performance in hot and humid environments.

5. Protection against contamination and leaching risks in the battery cooling system

If ions or oligomers leach out of conventional battery cooling components and lines, this can contaminate the cooling system to the point where the battery's electrical performance is compromised. However, since GENESTAR™ PA9T causes only minimal leaching effects from the coolants, the system's cleanliness increases, thereby enhancing the reliability of the cooling system and, consequently, that of the entire EV battery.

6. Supports high-volume production even for complex components

The pressure to scale up and accelerate battery production is increasing. At the same time, components are being designed with ever-greater complexity, featuring thinner walls, more intricate geometries, and a high degree of integration. GENESTAR™ PA9T meets the new requirements of industrial manufacturing. This is because the material is excellent to process—whether by injection molding or extrusion—it exhibits good laser weldability, and it optimizes high-volume production even for complex and highly integrated components.

Landing page for the trade show with additional information

For more information on the use of GENESTAR™ PA9T in modern EV battery architectures, please visit Kuraray's landing page for "The Battery Show Europe 2026":

<https://go.kuraray.com/TheBatteryShow2026>

About Kuraray

Established in 1991, Kuraray Europe GmbH is based in Hattersheim, near Frankfurt am Main, Germany. In 2025 the company generated annual sales of EUR 1.07 billion. It has more than 850 employees in Germany at its sites in Hattersheim/Frankfurt and Troisdorf. Kuraray is a global specialty chemicals company and one of the largest suppliers of industrial polymers and synthetic microfibers for many sectors of industry. Examples are Kuraray Poval™, Mowital®, Trosifol® and Clearfil™. Kuraray Europe also has around 216 employees at seven other European sites. They are also working on the development and application of innovative high-performance materials for a wide range of sectors, including the automotive, paper, glass and packaging industries, as well as for architects and dentists.

Kuraray Europe is a wholly owned subsidiary of the publicly listed Kuraray Group, which is based in Tokyo, Japan, and has more than 12,000 employees worldwide and sales of JPY 808.4 billion. In 2026, Kuraray is celebrating its centenary.

This press information including images is available at: <https://www.kuraray.eu/>

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