

PRESS KIT – E-Mobility

Safety Simplified – Intelligent Safety Solutions for Battery Systems

Complex battery systems in e-mobility place the highest demands on **space, functionality and safety**. To meet these requirements, Konzelmann GmbH develops innovative safety solutions for battery systems that can be **flexibly integrated into a wide range of applications**.

At the heart of this system is the **KBerstring**, a solution based on high-performance polymer components that can be integrated into battery housings in a space-saving and cost-effective way. At IAA TRANSPORTATION 2026, Konzelmann is presenting a product innovation together with HYJOIN: By combining the KBerstring with **hyJOIN joining technology**, the KBerstring can, for the first time, be directly and firmly connected to a metal housing. The joint solution enables **safe, robust and efficient integration** of components into battery systems and opens up new possibilities for future-oriented mobility applications.

Modular principle for maximum flexibility

Depending on the application, the KBerstring can be integrated using laser welding, ultrasonic welding or adhesive bonding. With the new hyJOIN technology, another integration method is now available for metal housings. Where direct integration is not possible, additional housing modules, fastening elements and seals are used. This allows customized safety concepts to be flexibly adapted to different materials, installation scenarios and manufacturing processes.

Safety by design

Each individual safety element at Konzelmann is 100 percent tested and marked with a unique laser code. This ensures complete traceability – a key quality feature for safety-critical applications. Thanks to standardized test methods and the use of **ROBB test bodies** (Rupture, Opening, Bursting, Breathing), the behavior of the safety elements within the overall system can be assessed at an early stage.

Customer benefits at a glance:

- **Flexibility:** Adaptable to different installation scenarios, materials and manufacturing processes
- **Efficiency:** A wide range of integration options – now also for metal housings with hyJOIN technology
- **Safety:** Maximum traceability through 100 percent testing and laser coding
- **Sustainability:** Customized solutions for safe and efficient integration into battery systems

“Our modular solutions built around the KBerstring stand for maximum safety with minimal integration effort. By combining KBerstring and hyJOIN, we create new possibilities for integrating safety functions efficiently and permanently into battery systems,” explains **Dr André Konzelmann, CEO and Head of Business Unit eMobility at Konzelmann.**

Would you like to learn more about Konzelmann’s intelligent safety solutions for battery systems or are you interested in an interview? Please contact our press office.

Press photos (previews)



Photo 1: The Konzelmann KBerstring is directly and securely attached to the metal casing of a lithium-ion battery using the new hyJOIN joining technology.



Photo 2: Dr André Konzelmann, CEO and Head of Business Unit eMobility at Konzelmann.

The images provided can only be used in connection with reporting on Konzelmann, quoting “Photo: Konzelmann”.

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About Konzelmann

For more than 60 years, Konzelmann GmbH has stood for innovations made of plastics. The family-run company is headquartered in Löchgau, Germany, and has an office in Detroit, USA, as well. Konzelmann develops polymeric components and systems for friction optimization as well as emission reduction. Its customers are major OEMs and Tier 1 suppliers in the automotive, medical and industrial sectors.

Konzelmann's experts follow a holistic approach to finding solutions: through intensive listening and many years of expertise in the development of special technical applications, individual solutions with a holistic view of product and process interfaces are created in exchange with the customer. The result is reduced production costs with superior product properties. Current examples include the in-house developed [KBerstring®](#), which enhances battery safety in the context of e-mobility; the internally clamped rectangular sealing ring [ID Sealing \(REDI\)](#), which can significantly reduce both leakage and friction torque; and the TÜV Süd-certified PURKON®2000 material, which provides comprehensive leakage protection in hydrogen applications. The in-house developed PURKON® materials – PURKON®2000, PURKON®2001, and the new PURKON®2080, PURKON®3000, and PURKON®4000 presented for the first time at IAA TRANSPORTATION 2026 – meet the highest material requirements and exemplify Konzelmann's application-oriented and forward-looking product development.

Further Information: <https://www.konzelmann.com/en/>

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About HYJOIN

hyJOIN® technology stems from a Fraunhofer innovation that was further developed by the SME Kist+Escherich. With the founding of hyjoin GmbH, HYJOIN combines decades of excellence in mechanical engineering with startup agility – enabling professional structures, international expansion and the access to new industries. The product portfolio ranges from hyJOIN® technology to machine and plant solutions based on it, all the way to high-quality processes for industrial applications. The focus is on industrialization: HYJOIN develops technologies into robust, certifiable solutions and supports their rollout in demanding applications – particularly in automotive and medical technologies.