

PRESS KIT – TPU

TPU – Sustainable Material Expertise for the Mobility of Tomorrow

With the establishment of its own **competence center for thermoplastic polyurethanes (TPU)** at its headquarters in Löchgau (Germany), Konzelmann GmbH has reached a strategic milestone. The goal is to develop customized high-performance seals and polymer solutions for demanding applications in automotive engineering, e-mobility and industry.

With its expanded PURKON portfolio, Konzelmann is presenting new TPU materials at IAA TRANSPORTATION 2026 that have been developed in response to specific customer requirements. In addition to the established materials PURKON2000 and PURKON2001, PURKON2080, PURKON3000 and PURKON4000 expand the portfolio and enable customized solutions for different applications – from solenoid valves in brake systems and seals for mineral oil-based and bio-based media to thermal management and battery cooling in electric vehicles.

Advantages of TPU

The injection molding process for TPU enables properties that cannot be achieved with conventional seals made of metal, rubber-metal or PTFE:

- Implementation of complex geometries
- Short production cycle times
- Lightweight design potential through the substitution of heavier components
- Simplified assembly thanks to flexible, installation-friendly geometries

“Thanks to our experience with complex sealing applications and the highly robust TPU material, we are able in some cases to replace a complicated metal or rubber-metal sealing solution with a pure TPU solution – achieving noticeable weight reduction while simultaneously optimizing vehicle performance,” explains **Heiko Kurz, Head of Sealing Technology Business Unit at Konzelmann**.

Focus on sustainability

Konzelmann pursues a clear sustainability approach with TPU. Wherever technically feasible, materials are developed using renewable raw materials – such as castor oil. Results are continuously validated in the company's own chemical laboratory. At the same time, Konzelmann completely avoids prohibited substances or PFAS.

“For us, thermoplastic polyurethane (TPU) is a high-performance material class that, through its combination of functionality, weight reduction and material efficiency, can make an important contribution to future-oriented mobility solutions,” emphasizes **Heiko Kurz**.

New applications in mobility

Alternative drive concepts are opening up new application possibilities for TPU. In electric vehicles, a wide range of applications is emerging, for example in thermal management and battery cooling. Thanks to their high mechanical strength and resistance, TPU materials offer new possibilities for efficient and reliable sealing solutions in these areas.

Would you like to learn more about Konzelmann's customized TPU materials or are you interested in an interview? Please contact our press office.

Further links:

- [Konzelmann TPU seals for e-mobility - AI Online –](#)

Press photos (previews)



Photo 1: An overview of Konzelmann's PURKON product family: PURKON2000, PURKON2001, PURKON2080, PURKON3000, PURKON4000.

Photo 2: Heiko Kurz, Head of Sealing Technology Business Unit 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/>