**Lightweight, Flexible, Durable: KRAIBURG TPE’s THERMOLAST® K Powers Next-Gen Drone Design**

Drones have expanded their applications from target practice and reconnaissance to broader commercial roles in agriculture, logistics, security, and healthcare. They improve efficiency in tasks such as precision farming, surveillance, and delivery through algorithm-driven systems, machine learning, and smart sensors.

Recent innovations focus on enhancing aerodynamics, structural integrity, miniaturization, and overall performance, with growing emphasis on lightweight designs and reducing carbon footprint. Advanced materials like [thermoplastic elastomers (TPE)](https://www.kraiburg-tpe.com/en) offer the versatility to back these upgrades.

KRAIBURG TPE, a global manufacturer of TPE compounds for automotive, consumer, industrial, and medical markets, offers a high-performance TPE portfolio that enables manufacturers to keep up with innovation trends in products such as drones and accessories.

**Lightweight for efficiency and design flexibility**

Weight is a critical factor in drone performance. [THERMOLAST® K](https://www.kraiburg-tpe.com/en/thermolast-k) GP/FG Series imparts [lightweight properties](https://www.kraiburg-tpe.com/en/lightweight-tpe) that maintain strength and durability while helping reduce overall drone weight. The material’s versatility allows for intricate drone designs, enabling manufacturers to create components that meet specific functional and aesthetic requirements.

**Ease of process and customization**

THERMOLAST® K GP/FG Series delivers excellent mechanical properties and is easy to process through extrusion and injection molding, making it suitable for high-volume production. Available in black and natural, the compounds are also colorable, allowing customization to match style preferences.

**Durability and safety in drone construction**

THERMOLAST® K GP/FG Series TPEs deliver outstanding impact resistance, translating to greater durability for drones and accessories. Components such as propeller guards, landing gear pads, and skids benefit from the material’s ability to improve grip, reduce vibration, and protect internal electronics from impact during landings. These TPEs also provide excellent UV and weather resistance, helping extend the drone’s service life even with frequent outdoor use.

**Sustainability from the get-go**

At KRAIBURG TPE, [sustainability](https://www.kraiburg-tpe.com/en/sustainability) drives our innovation. Our portfolio includes bio-based TPEs and compounds with post-consumer (PCR) and post-industrial (PIR) recycled content. Selected TPEs are certified under GRS and ISCC PLUS. We also provide [Product Carbon Footprint (PCF)](https://www.kraiburg-tpe.com/en/product-carbon-footprint-calculator) data upon request to support sustainability decisions.

We proudly earned the EcoVadis Gold Medal in 2025 and are committed to the Science Based Targets initiative (SBTi), aligning our goals with global climate action.

From reducing emissions to increasing circularity, our sustainable TPEs deliver reliable performance and are available worldwide to support your applications while advancing your sustainability goals.

**Get in touch today** to learn how KRAIBURG TPE can support your sustainability and product development journey.

*Disclaimer: The applications mentioned are illustrative of material capabilities only. Final product suitability and regulatory compliance must be assessed and validated by the customer.*

A drone flying in the air

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**(Photo: © 2025 KRAIBURG TPE)**

For high-resolution photography, please contact Bridget Ngang ([bridget.ngang@kraiburg-tpe.com](mailto:bridget.ngang@kraiburg-tpe.com) , +6 03 9545 6301).

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KRAIBURG TPE (www.kraiburg-tpe.com) is a global manufacturer of custom thermoplastic elastomers. KRAIBURG TPE was founded in 2001 as an independent business unit of the KRAIBURG Group and is now the industry's competence leader in the field of TPE compounds. The company's goal is to provide safe, reliable and sustainable products for customer applications. With more than 700 employees worldwide and production sites in Germany, the USA and Malaysia, the company offers a large product portfolio for applications in the automotive, industrial and consumer goods industries, as well as for the strictly regulated medical sector. The established THERMOLAST®, COPEC®, HIPEX® and For Tec E® product lines are processed by injection molding or extrusion and offer manufacturers numerous advantages not only in processing but also in product design. KRAIBURG TPE is characterized by its innovative strength, global customer orientation, customized product solutions and reliable service. The company is ISO 50001 certified at its headquarters in Germany and holds ISO 9001 and ISO 14001 certifications at all its sites worldwide.