**KRAIBURG TPE’s Light Effect TPE Powers Aesthetic Innovation in Smart Electronics Design**

Electronic brands share a common vision: to advance innovation in line with consumers' changing lifestyles and functional needs, such as quick response, device integration, connectivity, aesthetics, and personal identity. As electronics evolve toward more seamless and intuitive use, many now feature touch-sensitive or gesture-responsive interfaces, often enhanced with soft-glow elements for low-light visibility and pivoting away from conventional buttons or controls.

KRAIBURG TPE, a global manufacturer of thermoplastic elastomers (TPEs) and customized material solutions for various industries, offers TPEs that meet the flexibility, durability, and design needs of next-generation electronics. Taking style possibilities a step further, its [Light Effect TPE series](https://www.kraiburg-tpe.com/en/advanced-light-transmissible-tpe-solution-smart-electronics-and-automotive-interiors) aims to provide light-transmissive functionality for a range of electronic components.

**Smart Electronics Design Materials for Light Transmission and Enhanced User Experience**

The Light Effect TPE series has versatile applications in smart electronics, serving both visibility and aesthetic purposes to enhance user experience. It enables light signals to pass through housings or straps, helping maintain a clean, integrated design. In consumer electronics such as remote controls, smart speakers, [VR devices](https://www.kraiburg-tpe.com/en/sealing-and-sensory-innovations-virtual-reality-device), and gaming consoles, Light Effect TPEs create diffused light paths for touch interfaces, soft buttons, or edge lighting, enhancing interactivity and tactile comfort. Smart home devices benefit from glowing borders or backlit icons that indicate status or user input, while mobile accessories such as chargers, earbud cases, and protective gear can feature illuminated logos, indicators, or customizable RGB effects.

The Light Effect TPE series, with exceptional light transmissibility, renders lighting enhancement in [electronic components and smart devices](https://www.kraiburg-tpe.com/en/consumer-electronics-sustainable-innovation) such as smartwatches, smartphones, and home assistants, creating a harmonious blend of functionality and design. The specialized compounds also exhibit superior physical and mechanical properties, including a density of 0.89 ± 0.03 g/cm³, hardness of 60 ± 5 ShA, tensile strength of 10 MPa, and elongation at break of 700%. Featuring excellent adhesion to polypropylene (PP) and a UV and weathering resistance rating of DE 1.20 (350h), the material ensures longevity and maintains performance over time, offering both flexibility and durability.

**Soft-touch ergonomics and design flexibility**

The Light Effect TPE series combines [soft-touch](https://www.kraiburg-tpe.com/en/smooth-touch-tpe) ergonomics with design flexibility, making it ideal for [wearable technologies](https://www.kraiburg-tpe.com/en/stylish-smartwatch-strap-tpe) such as smartwatches, fitness bands, and health trackers, as well as handheld devices. It offers a smooth, comfortable surface even during prolonged skin contact, while its high moldability allows for detailed designs, giving manufacturers greater freedom to innovate.

**Compliance to safety**

The Light Effect TPE series adds safeguarding features to products through its [flame-retardant properties](https://www.kraiburg-tpe.com/en/flame-retardant-tpe), resistance to high temperatures up to 85 °C, and compliance with IEC 61249-2-21 standards—making it halogen-free, which is a plus for environmental safety.

**Sustainability from the get-go**

At KRAIBURG TPE, [sustainability](https://www.kraiburg-tpe.com/en/sustainability) is at the heart of our innovation. Our portfolio features bio-based TPEs and compounds with post-consumer (PCR) and post-industrial (PIR) recycled content. Selected TPEs carry GRS and ISCC PLUS certifications. We also provide Product Carbon Footprint (PCF) data on 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 dependable performance and are available worldwide to help meet your applications while advancing your sustainability goals.

Get in touch today to explore how KRAIBURG TPE is able to support you on 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 finger pressing a button on a touch screen

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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.