

Press Release

KRAIBURG TPE's Advanced Light-Transmissible Solution for Smart Electronics and Automotive Interiors

Kuala Lumpur, March 2025

Page 1 of 5

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KRAIBURG TPE's Advanced Light-Transmissible Solution for Smart Electronics and Automotive Interiors

KRAIBURG TPE, a global manufacturer of custom thermoplastic elastomers, has introduced the Light Effect TPE, an advanced light transmissible material.

It is an ideal material for consumer electronics and automotive interiors, combining aesthetics and performance. Whether used in electric vehicle (EV) interiors, smart home devices, and consumer electronics, it consistently delivers reliability, while its soft-touch property adds a premium feel to the design of a product.

Furthermore, its exceptional light transmissibility enhances automotive and [electronic components](#) with an ambient glow. Highly moldable, the material enables versatile designs and limitless creative possibilities.

Material excellence for innovative solutions

KRAIBURG TPE's Light Effect TPE has a density of $0.89 \pm 0.03 \text{ g/cm}^3$ and a hardness of $60 \pm 5 \text{ ShA}$. It offers a tensile strength of 10 MPa and an elongation at break of 700%, ensuring flexibility and durability.

With a weathering resistance rating of DE 1.20 (350h), the halogen-free material (compliant with IEC 61249-2-21) maintains performance over a period of time. The material features UV resistance and optimized mechanical properties for long-lasting use, with a controlled level of emission and odor, thus making it suitable for automotive interiors.

Designed for performance in smart electronics

Press Release

KRAIBURG TPE's Advanced Light-Transmissible Solution for Smart Electronics and Automotive Interiors

Kuala Lumpur, March 2025

Page 2 of 5

KRAIBURG TPE's Light Effect TPE can enhance both the visual appeal and functionality of devices.

- **Ambient Lighting:** Smart devices like smartphones, smartwatches, and home assistants can use Light Effect TPE, integrated into the device body to provide ambient lighting. Whether for a logo, backlit display, or indicator light, it stays discreet when inactive, allowing for a clean design.
- **Soft touch and Ergonomics:** The soft-touch surface of Light Effect TPE enhances the user experience in wearables such as smartwatches or fitness trackers, especially during prolonged skin contact. Its smooth finish improves the comfort of handheld devices and personal appliances.
- **Design Flexibility:** Light Effect TPE molds into complex shapes, enabling manufacturers to explore unique designs for smart gadgets. The material is available in black and colored options, allowing for both functional and aesthetic lighting effects. Also, it adheres well to polypropylene (PP), ensuring durability and versatility in various applications.

Optimized functionality for electrical and electronics (E&E) applications

KRAIBURG TPE's Light Effect TPE provides extra benefits for E&E products, enhancing their practical value.

- **Backlighting and Indicators:** The Light Effect TPE, typically used for light-transmitting components in control panels, switches, and electrical connectors, allows for subtle backlighting and illuminated indicators, improving user interaction and making devices more intuitive.
- **Noise Reduction:** In home electronics and industrial devices, Light Effect TPE helps reduce vibrations and control noise. Used in

Press Release

KRAIBURG TPE's Advanced Light-Transmissible Solution for Smart Electronics and Automotive Interiors

Kuala Lumpur, March 2025

Page 3 of 5

damping covers or gaskets, it minimizes rattling and creaking from moving parts, ensuring a quieter, smoother operation.

Superior driving experience for EV applications

The automotive industry, particularly the [electric vehicle \(EV\) sector](#), is also benefiting from the Light Effect TPE, especially in terms of interior design, user interface, and eco-friendliness.

- **Interior Ambient Lighting:** When integrated into dashboard panels, door trims, and footwells, the Light Effect TPE provides ambient lighting for the cabin. Its subtle glow adds elegance while ensuring adequate illumination for nighttime driving.
- **Noise and Vibration Damping:** The Light Effect TPE's noise-damping properties help reduce road and engine noise, improving the driving experience. Used in interior panels and vibration-prone parts, it helps create a quieter cabin.
- **UV Resistance and Durability:** The Light Effect TPE's UV resistance prevents damage from the sun's rays, in automotive interiors, including dashboard trim and lighting systems, maintaining their appearance and performance over time.

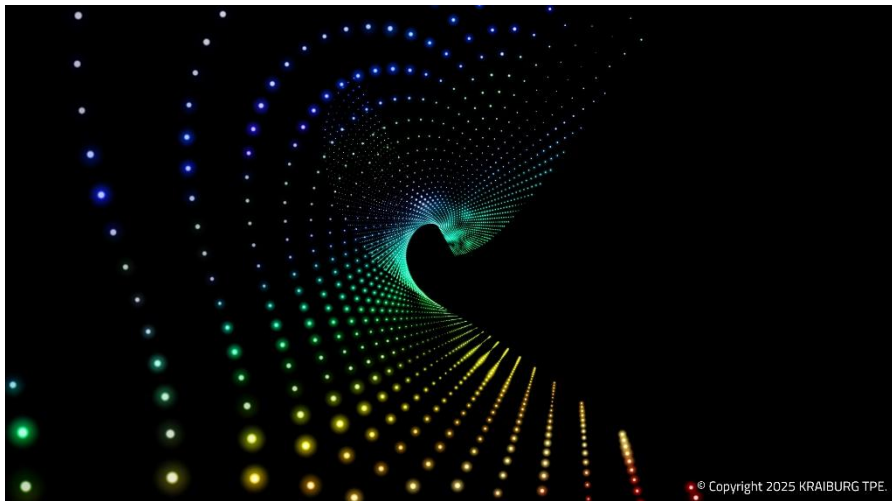
KRAIBURG TPE's Light Effect TPE offers a wide range of possibilities to create products that are aesthetic and high-performing, all while being [environmentally conscious](#). With its flexible molding capabilities, impressive durability, and focus on user comfort, Light Effect TPE is leading the way in material innovation for the future.

Press Release

KRAIBURG TPE's Advanced Light-Transmissible Solution for Smart Electronics and Automotive Interiors

Kuala Lumpur, March 2025

Page 4 of 5



(Photo: © 2025 KRAIBURG TPE)

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Press Release

KRAIBURG TPE's Advanced Light-Transmissible Solution for Smart Electronics and Automotive Interiors

Kuala Lumpur, March 2025

Page 5 of 5



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 698 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.