**TPEs take to 3D printing applications**

The 3D printing process has in recent years been making great strides in the automotive, medical, industrial and consumer markets. A process that was once limited to prototyping, 3D printing is today more often being used for small batch production and to manufacture spare parts.

Thus, the evolving 3D printing technology, which is implemented in an open material feed system, provides enormous potential for significant savings of time, work and costs involved in developing new applications.

TPEs or thermoplastic elastomers are now being used as 3D printable materials for the additive manufacturing industry, especially when soft polymers are required.

KRAIBURG TPE, a global TPE manufacturer, offers a broad slate of TPE compounds with a wide range of features, making them a suitable choice for various applications when it comes to 3D printing.

KRAIBURG TPE also offers compounds with a wide range of TPE hardness, from super soft <10 Shore A to 66 Shore D.

**TPEs for customization**

The 3D printing technology allows the ability to customize designs to suit the specific needs of products. This is where KRAIBURG TPE’s THERMOLAST® K product seriescomes into the picture.

The THERMOLAST® K TPE compound allows the possibility for customization and different properties in the 3D printing process – like haptic surface touch for handles or low surface friction for smooth parts.

Furthermore, extremely detailed surfaces can be produced with very soft TPEs. Another benefit is that a variety of color options are afforded with TPE compounds, allowing the freedom of design flexibility.

For industry sectors that are looking at improving a product’s impact on the environment, TPEs are a specifically good choice as the materials are recyclable. The compounds are also free of latex, PVC and phthalates, and feature low odor and reduced emissions.

**Prototyping made easy with TPEs**

The 3D printing technology is gaining popularity for products that are targeted at outdoor activity usage and prototyping, especially in high-performance applications. KRAIBURG TPE’s compounds offer excellent UV and weather resistance, enabling the materials to withstand the harsh environment and climate.

Possible applications for KRAIBURG TPE’s compounds are fasteners, gaskets, seals, adapters, handles, grips and more.

Other advantages of KRAIBURG TPE compounds are that they are well established with numerous certifications. For example, for the consumer market, KRAIBURG TPE compounds are in compliance with various regulations and approvals such as China’s GB standards (中国国标), EU Directive 10/2011, the EN71/3 European safety standard for toys, as well as the Food and Drugs Administration (FDA) Code of Federal Regulations (CFR), Title 21.

**Medical and healthcare industry**

As a result of the high regulations regarding safety in the medical industry, TPEs are the perfect choice.

Furthermore, KRAIBURG TPE’s compounds comply with recognized medical standards such as USP Class VI, DIN ISO 10993-4,-5,-10,-11, and VDI 2017 Medical Grade Plastics.

Offered in the range of compounds is the [THERMOLAST® M](https://www.kraiburg-tpe.com/en/thermolast-m), which is a specially developed medical-grade TPE for medical, pharmaceutical, and diagnostic applications.

Possible applications of the [THERMOLAST® M](https://www.kraiburg-tpe.com/en/thermolast-m) compounds include masks, straps, fastness, seals and more.



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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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**About KRAIBURG TPE**

KRAIBURG TPE ([www.kraiburg-tpe.com](http://www.kraiburg-tpe.com)) is a global manufacturer of thermoplastic elastomers. From its beginning in 2001 as a subsidiary of the historical KRAIBURG Group founded in 1947, KRAIBURG TPE has pioneered in TPE compounds, today being the competence leader in this industry. With production sites in Germany, the U.S., and Malaysia, the company offers a broad range of compounds for applications in the automotive, industrial, consumer, and strictly regulated medical sectors. The established THERMOLAST®, COPEC®, HIPEX®, and For Tec E® product lines are processed by injection molding or extrusion and provide numerous processing and product design advantages to manufacturers. KRAIBURG TPE features innovative capabilities as well as true global customer orientation, customized product solutions and reliable service. The company is certified to ISO 50001 at its headquarters in Germany and holds ISO 9001 and ISO 14001 certifications at all global sites. In 2019, KRAIBURG TPE, with 645 employees worldwide, generated sales of 190 million euro.