**Medical & Healthcare TPEs’ Adhesion & Processing Characteristic**

The demand for high-performance engineering plastics such as thermoplastic elastomers (TPEs) has expanded due to recent advances in healthcare and medical equipment. TPE compounds also satisfy the expectations of manufacturers in terms of production and cost efficiency.

TPEs bond easily when processed either through overmolding or co-extrusion with most commonly used structural plastics, eliminating the need for additional adhesives and allowing for faster and more cost-effective processing.

One of the main areas of growth for TPEs is overmolding. Many product designers are utilizing TPEs to add a “soft touch” to a rigid material. KRAIBURG TPE, a global TPE manufacturer of a wide range of TPE products and custom solutions for multiple industries, offers the THERMOLAST® H series HC/AP, developed specifically for healthcare and medical device applications in Asia Pacific. The HC/AP series compounds have a hardness range of 30-90 Shore A and can be used in a variety of applications due to their wide range of hardness from soft to semi-rigid.

Especially for medical and healthcare applications, KRAIBURG TPE’s HC/AP series of TPE compounds can be overmolded to produce comfortable, non-slip, and abrasion-resistant handles, grips, and buttons.

Through multi-component injection molding and extrusion, the THERMOLAST® H HC/AP series has good bonding with polypropylene (PP) and polyethylene (PE) resins, allowing for flexibility in product designs.

As such, the compounds can be overmolded to alter the surface feel, improve aesthetics, and cushion against vibrations.

**All-round material solutions**

Good haptics, soft-touch properties and elasticity improve function and design, allowing medical device manufacturer to be more creative with their product applications.

KRAIBURG TPE’s HC/AP compounds have a good compression set and are thus fitting for sealing and closure applications.

Furthermore, the compounds can be sterilized in an autoclave with EtO at 121°C; and have good thermoplastics processing and flowability, stretching the possibility for more medical part designs.

The HC/AP series compounds are safe for use in medical applications and meet standards such as cytotoxicity ISO 10993-5, GB/T 16886.5, bio-compatibility testing according to ISO 10993-5 and GB/T 16886.5, as well as a number of international food contact and medical standards.

Other properties such as good chemical resistance, good sealing and no cytotoxic potential, as well as the ability to be colored into various chromatic effects, present KRAIBURG TPE’s HC/AP compounds as all-round material solutions for the medical and healthcare segments.

A close-up of a computer

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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) is a globally operating 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 advantages in processing and product design for 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 2020, KRAIBURG TPE, with over 650 employees worldwide, generated sales of €184 million.