**TPEs for direct contact with blood and body fluid applications in the medical sector.**

KRAIBURG TPE, a global specialist in superior TPE compounds, offers a range of TPE-compounds of its medical grade plastics brand THERMOLAST® M. These are designed for direct contact with blood and body fluid applications in the medical sector.

New emerging diseases are requiring more stringent handling to deter their spread or minimize their impact. As key to infection control, protocols for handling blood and body fluid, as potential carriers of pathogens, are strictly followed. As well, drug delivery systems, which are adopted intravenously, are also continuously upgraded to be on par with the complexities of treating new diseases.

Medical-grade plastic materials such as thermoplastic elastomers or TPEs demonstrate the performance, safety and durability needed for medical devices to ensure compliance to protocols and delivery of medical care. TPEs, thus, provide the raw material specifications of manufacturers of medical equipment and accessories.

KRAIBURG TPE, a global TPE manufacturer of a wide range of thermoplastic elastomer products and custom solutions for multiple industries, offers high-quality custom-engineered THERMOLAST® M TPE series compounds for medical device applications including for direct contact with blood and body fluid management products.

# **Drawing the material benefits of TPE**

The THERMOLAST® M series offers the advantages of resealing, low surface friction and high elasticity; and has a hardness range from 60VLRH (Super Soft) to 50Sh D (Semi Rigid) that are suited for applications for blood collector cap sealing; infusion caps, which are widely used in sealing for pump dosage systems; injection fuel plugs, seal head of syringes, urinary catheter caps, menstrual cups, and hoses.

**Evidence of Safety**

The THERMOLAST®M compounds are free of animal-based ingredients; and free of latex, PVC, and phthalates. The compounds are produced without the use of heavy metals; and are sterilizable under autoclave 134°C, gamma radiation 2x35 kGy, and EtO-gas.

Furthermore, the TPE series meets the requirements of the VDI 2017 guideline for medical grade plastics (MGPs) issued by the Association of German Engineers (VDI), as well as the Reach and RoHS standards. The compounds are tested according to DIN ISO 10993-5 Cytotoxicity; DIN ISO 10993-4 Haemolysis, indirect blood contact; DIN ISO 10993-10 Intracutaneous irritation; DIN ISO 10993-11 Acute system toxicity; and USP Class VI Extraction.

**Customer satisfaction at the fore**

KRAIBURG TPE strives to maintain the standards of its products by providing a unique service package that focuses on our customer needs in constantly recording manufacturing process in the drug Masterfile (DMF); and by guaranteeing 24-month supply security and purity of our raw materials through the commitment of our suppliers and a dedicated production unit for THERMOLAST® M to ensure the quality, safety and reliability of our TPEs.



**(Photo: © 2020 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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**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.