**A wonderland of safe sensory toys with TPE**

*KRAIBURG TPE’s FC/S and FC/AD/PP are ideal materials for safe sensory toys for babies and toddlers*

Children enjoy myriad of indoor and outdoor activities. Children develop all these skills as they explore the world around them through sensory play, enhancing their fine and gross motor skills, as well as cognitive behaviors, creativity, reasoning, and mood regulation. Sensory toys with different textures, colors, and functions help toddlers and infants make sense of their surroundings. Toys then become essential tools for children to connect with other people, satisfy their social and emotional needs and assist them in becoming well-rounded individuals.

However, it is not fun if the toys are made of flimsy and hazardous materials. Toy materials must endure repeated handling and impact, and must not contain lead, phthalates, cadmium, and other toxins that may be harmful to children who play with them. Sensory toys including sensory teethers, rattles, bristle blocks, fidget sensory toys, and squeaky toys can be produced with long-lasting and food-safe materials such thermoplastic elastomers (TPEs).

KRAIBURG TPE, a global TPE manufacturer of a full variety of thermoplastic elastomer goods also offers varied custom-engineered TPE solutions for consumer product applications. These include food contact-safe and safety regulations-compliant TPEs for children's and baby’s toys.

**FC/S series– Soft touch surface and dry haptic**

The FC/S series from KRAIBURG TPE has the desired characteristics, such as soft and dry haptic, to produce sensory toys for babies and toddlers, like bristle blocks and squeaky toys.

The compounds have good elasticity and a hardness range of 45 VLRH to 70 VLRH. They offer a soft touch surface and provide a comfortable grip for newborns and toddlers. The translucent tone of the super soft material series allows for precoloration into different colors.

The FC/S series is compliant with EN71-3, Regulation (EU) NO 10/2011, and US FDA CFR 21 (raw material conformity), as well as ISO 10993-10 (skin irritation).

**FC/AD/PP Series – PP adhesions for various types of babies and toddlers’ sensory toys**

The series’ hardness range of 30 Shore A to 90 Shore A opens a wide range of applications, from toys to consumer items. The compounds comply with multiple global food contact regulatory standards, including the China GB4806-2016, Regulation (EU) No 10/2011, and US FDA CFR 21. They are free of animal components and hazardous substances.

This series enables adhesion to PP, which is required to manufacture toys such as fidget sensory toys, sensory teethers, and rattles - many of which are constructed with a PP plastic frame; while the soft parts and smooth edge design can be made with TPE.

Meanwhile, TPE, which is available in natural and translucent colors, is colorable and meets requirements for toy safety.

**Sustainability successes of our TPE**

Besides the materials for sensory toys for babies and toddlers, KRAIBURG TPE’s recent sustainability innovations include a specially developed material solution for automotive, consumer, and industry applications comprising post-consumer recycled (PCR) and post-industrial recycled (PIR) content.

Are you looking for a sustainable TPE solution? Talk to us!

Our experts are happy to answer any questions you have, as well as to offer the right solution for your application.



**(Photo: © 2022 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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KRAIBURG TPE ([www.kraiburg-tpe.com](http://www.kraiburg-tpe.com)) is a global manufacturer of thermoplastic elastomers. From its inception in 2001 as subsidiary of the historical KRAIBURG Group founded in 1947, KRAIBURG TPE has pioneered in TPE compounds, being the competence leader in this industry. The mission is to provide products that improve everyday life by offering safe, comfortable and more sustainable alternatives in plastics. With over 680 employees worldwide and production sites in Germany, the US, and Malaysia, the company offers a broad range of compounds for applications in the automotive, industrial, consumer, and for the 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.