Cycling shorts padded with innovative TPE layer from KRAIBURG TPE provide lasting comfort

**SQlab has chosen Supersoft TPE for optimum pressure distribution in cycling shorts**

The sports sector is booming and more people than ever are cycling on the streets in Germany. Whether or not it’s boosted with electric power, getting about on two wheels is popular, with a 2020 *Fahrrad-Monitor* survey showing that 85% of participants say fitness is their reason for cycling, while more than two-thirds of the participants put the emphasis on environmental protection. At the same time, there is growing demand for high-quality equipment that will have a positive effect on the cycling experience. Top of the list: Cycling shorts. The garment has to be stylish, made of functional material and, above all, it needs to be smartly padded. Whether it’s for extended tours or racing – to prevent bike tours from turning into hell rides, SQlab, a Munich company, has selected Supersoft TPE for its new shorts padding. The result is outstandingly high-quality, ergonomic, and durable trouser pads – so you can concentrate on just enjoying the cycling.

SQlab’s top priorities in product development are ergonomics and health when cycling. These are the targets that carry the company’s research and development forward at a constantly high level. To take quality to the next level, the team was looking for a very soft thermoplastic elastomer (TPE). The focus was also on shear forces, which are the main factor involved in cycling comfort. A high-quality TPE distributes the forces homogeneously and thus reduces the pressure caused during demanding or long bike tours. Other criteria are very good processing properties, skin tolerance and outstanding quality during the product’s lifetime. Although these requirements, taken separately, could be met using established TPEs, the challenge was to find a single solution for all of the factors.

The NEXT GENERATION Supersoft TPEs from KRAIBURG TPE cover a hardness range from 30 to 50 Shore 00 or 45 to 70 VLRH (Very Low Rubber Hardness) and provide good mechanical properties and excellent compression set at room temperature.

In contrast to other solutions with similar values, this one stands out because the wearing comfort remains excellent even with extreme strain. In addition, the materials can be processed using both injection molding and 3D printing. The materials were also tested in accordance with ISO 10993-10 (skin irritation), have received other approvals and comply with additional standards:

* EN 71
* Color customizable
* REACH and RoHS are met

“Collaborating with KRAIBURG TPE contributed to the success of the project. We received excellent support and advice from planning to testing through to fine-tuning the final product,” sums up Lukas Bucht from Research Test and Technology at SQlab. But the result is certainly also visually appealing and wearable. “In the padding for the ONE10 and ONE11 SQ shorts, we’re using the reliable TPE, which we believe in and which our customers will also be able to enjoy for a long time.”

KRAIBURG TPE offers various Supersoft TPEs as a series in order to be able to provide optimal solutions for different requirements. The series is now available worldwide.



***Caption***: Finding the right combination takes you further ahead – as in the cycling shorts made by SQlab. Premium fabric, extremely dense foam plastic and TPE gel pads make the difference. (Image: SQlab)



***Caption***: Comparison of the average pressure distribution on a bike saddle: Supersoft TPE distributes the pressure evenly – pressure peaks are reduced. (Image: SQlab)

**About KRAIBURG TPE**

KRAIBURG TPE (www.kraiburg-tpe.com) is a global manufacturer of thermoplastic elastomers. From its beginning in 2001 as 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 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. In 2020, KRAIBURG TPE generated sales of 184 million euros with around 650 worldwide employees.