KRAIBURG TPE will be presenting a new THERMOLAST® DW series for sanitary and drinking water tubes and hoses at Fakuma 2023.

**Kink-resistant and tested in accordance with the KTW-BWGL standard**

**KRAIBURG TPE has launched a new series of thermoplastic elastomers (TPEs) for tubes and hoses used in sanitary and drinking water applications. These innovative products already meet the stricter evaluation criteria for plastics and other organic materials in contact with drinking water established by the German Environment Agency (KTW-BWGL standard), which will become binding for TPEs from March 2025. The compounds are characterized by easy processability and provide tubes and hoses with extremely smooth surfaces, considerably improved mechanical properties and excellent kink resistance. The new compounds will be presented at Fakuma 2023.**

Waldkraiburg, 17 October 2023 – Since March 2022 and with a transition period of three years, the updated evaluation criteria for plastics and other organic materials in contact with drinking water set up by the German Environment Agency (KTW-BWGL standard) have also applied to TPEs. The contact layer in tubes and hoses used for drinking water supply in household appliances such as dishwashers will accordingly have to meet these requirements from March 2025, too.

“With our new THERMOLAST® DW/H2 series, we are supporting customers who supply the market for sanitary and drinking water tubes and hoses in their effort to meet the stricter KTW-BWGL standard. At the same time, we have set a considerably higher standard for the performance of compliant TPE compounds,” says Hartmut Arheidt, Market Manager Industry at KRAIBURG TPE. “The innovative materials technology leads to tubes and hoses that have considerably improved tensile strength, tear resistance and elongation at break as well as excellent kink resistance.”

The unique new THERMOLAST® DW generation replaces the products in the previous DW/H series and is currently available in six hardness grades, ranging from 70 Shore A to 40 Shore D (see table I). Easily processable on conventional extrusion lines for polyolefins, the compounds are suitable for efficient manufacturing of cold water and warm water tubes and hoses, providing up to 50% better mechanical properties and good adhesion to PP. At the same time, the TPE compounds also provide the necessary resistance to the growth of microorganisms in accordance with EN 16421 (formerly DVGW W270) due to their extremely smooth surfaces and have no impact on the odor, taste or clarity of water flowing through the tubes and hoses.

The THERMOLAST® DW/H2 compounds expand the potential applications for TPEs in this market segment and are particularly suitable for shower tubes, pressure hoses and food hoses as well as for supply tubing in dishwashers and washing machines. They have been developed in close cooperation with customers.

“Test reports on compliance with the regulations of the new KTW-BWGL are also available to us,” adds Hartmut Arheidt. “They confirm that the materials are generally suitable. We can gladly provide materials for sampling inspections to customers and prospective customers and partners at any time.”

KRAIBURG TPE will be presenting the new THERMOLAST® DW/H2 series at Fakuma 2023, held from 17 to 21 October in Friedrichshafen, at Booth B5-5303.

**Table I: Mechanical properties of THERMOLAST® DW/H2**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **DW/H2** |  |  |  |  |  |  |
| Hardness | 70 Shore A | 75 Shore A | 80 Shore A | 85 Shore A | 90 Shore A | 40 Shore D |
| Density (g/cm³) | 0.903 | 0.891 | 0.888 | 0.895 | 0.887 | 0.901 |
| Tensile strength (MPa) | 22.6 | 28.1 | 31.9 | 28.8 | 35.1 | 35.9 |
| Elongation at break (%) | 847 | 710 | 760 | 754 | 770 | 687 |
| Resistance to tear propagation (N/mm) | 30.3 | 31.1 | 39 | 48.1 | 62 | 70.7 |

(Table © 2023 KRAIBURG TPE)

**Table II: Tube testing in accordance with the KTW-BWGL standard (inside diameter 8 mm)**

|  |  |  |
| --- | --- | --- |
| **DW/H2** | 70 Shore A | 40 Shore D |
| Formulation conformity | ✓ | ✓ |
| Basic requirements at 23°C and 60°C  (TOC, odor, foaming, haze) | ✓ | ✓ |
| Testing of individual substances after formulation assessment at 60°C | ✓ | Not carried out |
| Microbiological resistance in accordance with EN 16421:2014-12 method 2  (identical with DVGW W270 test) | ✓ | ✓ |

(Table © 2023 KRAIBURG TPE)

Ein Bild, das Wasser, Seifenblasen, Flüssigkeit, Flüssigkeitstropfen enthält.

Automatisch generierte Beschreibung**Fig. 1:** KRAIBURG TPE has launched the innovative new THERMOLAST® DW series, complying with the KTW-BWGL standard (mandatory from March 2025) for PVC-free sanitary and drinking water tubes and hoses made of thermoplastic elastomers. (Image © 2023 KRAIBURG TPE)

Ein Bild, das Menschliches Gesicht, Person, Kleidung, Brille enthält.

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**Fig. 2:** Hartmut Arheidt, Market Manager Industry, at KRAIBURG TPE (Image © 2023 KRAIBURG TPE)

**Information for press representatives**

**[Ein Bild, das Kreis, Symbol, Design enthält.

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**About KRAIBURG TPE**

KRAIBURG TPE ([www.kraiburg-tpe.com](file:///\\file-ktd\Organisation$\MV\MV_TCC\01_PR_Content\01_PR_Agency\Press_Releases\2022\2022_PressReleases\KTD\06_K-Preview\www.kraiburg-tpe.com)) is a global manufacturer of custom-engineered thermoplastic elastomers. KRAIBURG TPE was founded in 2001 as an independent business unit of the KRAIBURG Group and is now the industry's competence leader in the field of TPE compounds. The company's goal is to provide safe, reliable and sustainable products for customer applications. With more than 680 employees worldwide and production sites in Germany, the USA and Malaysia, the company offers a large product portfolio for applications in the automotive, industrial and consumer goods industries, as well as for the strictly regulated medical sector. The established THERMOLAST®, COPEC®, HIPEX® and For Tec E® product lines are processed by injection molding or extrusion and offer manufacturers numerous advantages not only in processing but also in product design. KRAIBURG TPE is characterized by its innovative strength, global customer orientation, customized product solutions and reliable service. The company is ISO 50001 certified at its headquarters in Germany and holds ISO 9001 and ISO 14001 certifications at all its sites worldwide.