Elastomer guideline transfer to KTW-BWGL

Elastomer-bonded sealing materials that come in contact with drinking water need to be tested and certified. From March 1, 2025, a new guideline will be taking effect.

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For organic materials that come in contact with drinking water, proof of suitability for drinking water hygiene must be provided. Products that were previously subject to the German KTW, coating, or lubricant guideline (German: KTW-Leitlinie, Beschichtungsleitlinie oder Schmierstoffleitlinie) have been assessed since 21st of March 2021 according to the assessment basis for plastics, organic coatings and lubricants in contact with drinking water. Silicones and TPE based on silicones shall also come under the scope of the application once the relevant annexes are supplemented.

In the case of elastomers, the confirmation of conformity in the past has been carried out in accordance with the elastomer guideline (German: Elastomerleitlinie). In March 2022, elastomers and thermoplastic elastomers have also been included in the KTW-BWGL, with a transitional period until the 1st of March 2025.

KTW-BWGL gradually replaces elastomer guideline

Please note that until the 28th of February 2025, it is still possible to prove the suitability of the elastomer-bonded sealing materials associated with the elastomer guideline test reports and microbiological growth according to W270, provided that they are not older than 10 years.

The certificates in Table 1 confirm the suitability for the use in drinking water in the transitional period. In the transitional period, it is always possible to initiate new tests according KTW-BWGL or re-assess elastomer guideline testing if requirements from KTW-BWGL are met.

The elastomer guideline for products in contact with drinking water is to be withdrawn on March 1, 2025. From then on, own conformity declarations in combination with a related third party KTW-BWGL test report from an accredited institute replace the so far known certificates.

The material ingredients must be toxicologically assessed by the accredited test institute. They are typically listed in the actual positive list of annex “D” of the KTW-BWGL. Here, the recent listing of the aramid fibre and various cross-link substances are specifically worth mentioning as supportive for the sealing industry. Optionally, the ingredients could be qualified directly through the institute without publishing them

Transitional period until 28.2.2025	After 1.3.2025
Neutralised example for elastomer guideline (ELL) test certificates. **TEST CERTIFICATE** **according to the transitional regulation of the Elastomer-Guideline** **Product:** xyz **Specimen:** eg plates 200 mm x 200 mm and 200 mm x 80 mm The above mentioned product was tested according to the Guideline on the hygienic assessment of elastomers in contact with drinking water of the German Environment Agency. Pursuant to the test report-no.: **1234567-17 dated xx.xx.2017,** the product meets the requirements for the product group: **Seals for pipes with DN < 80 mm** **in contact with cold water (23°C) and hot water (85°C).** All product groups for which the requirements are met are summarised on the back side. The certificate is valid providing that the requirements, laid down in the Guideline regarding the testing of the microbial growth are fulfilled. This can be verified for the product f.e. with a valid test certificate according to the DVGW technical rule W 270. This test certificate is valid beginning with the date of issue and is ending by xx..xx.xxxx	Example template for KTW-BWGL confirmation. **Confirmation of conformity** for drinking water hygienic suitability owner of conformity: **Mustermann GmbH** product name: **xyz** product description: **Components of equipment with a surface proportion in contact with water of < 10% (P2)** temperature of use: **xx°C and xx°C** test basis: **type testing (without third-party monitoring – facilitated procedure)** testing requirements: **as per KTW-BWGL e.g. Annex D** test report(s): **No. xyz from xx.xx.20xx** **We hereby confirm that the product "xyz" has been tested in accordance with the currently valid guidelines for the hygienic assessment of materials in contact with drinking water issued by german UBA and that it meets the requirements.** Site, date _____

Table 1. Changes in the guideline

Example water meter.

in the positive list. Please note that it is not required to replace installed sealing materials after the end of the transition period.

KTW-BWGL risk-based approach

In the KTW-BWGL, the risk of individual components in contact with drinking water within a plant for the production, treatment, or distribution of drinking water is estimated based on the assignment to various risk groups (P1, P2, P3). The classification is based on the fraction AB/A of the water-contacting surface of the component AB within the overall plant or component with surface A. Surface A is generally the cross section of the sealing component. Sealing materials are to be classified in the risk groups P3 (AB/A < 1 %) and P2 (1 % < AB/A < 10 %). The KTW-BWGL does also provide a simplified confirmation of conformity in the form of a type test for components in risk groups P2 and P3.

KTW-BWGL sealing materials classified as risk group P2

Required type tests for risk group P2:

- Ingredients assessment
- Migration tests
- Microbiological growth

Tests are required for all components in contact with water.

Certifiable components in water meters:

- Metals
- Plastics
- Elastomers
- Coatings

For the confirmation of conformity, previous test reports that were prepared in the context of issuing can still be used, if test certificates are in accordance with the corresponding guidelines. In risk group P3, there is no ingredient assessment required by a third party. Only compliance with the basic requirements like odour, cloudiness, colouring, foaming, TOC as well as microbiological growth must be ensured to continue using these components. Sealing material suppliers, do not have any responsibility for the suitability of all composite components or the assembled system. ■

About the author

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