

Background

The Potable Water Ordinance (TrinkwV) of June 20, 2023 states:

§ 14 General requirements for materials and substances for the construction or maintenance of water supply systems:

Materials and substances used for the construction or maintenance of water supply systems that come into contact with untreated water or drinking water must not

1. directly or indirectly reduce the protection of human health provided for in this Ordinance,
2. impair the color, odor or taste of the water,
3. promote the multiplication of microorganisms
or release substances into the water in larger quantities than is unavoidable if the generally recognized rules of technology are observed.

To test and assess materials and substances, the Federal Environment Agency (UBA) has drawn up assessment principles based on Section 15 of the German Drinking Water Ordinance (TrinkwV) with requirements for materials that come into contact with drinking water and published them on the UBA website. The KTW-BWGL applies to organic materials.

Assessment Basis for Plastics and other Organic Materials (KTW-BWGL)

The KTW-BWGL consists of a general part, which covers the requirements and tests, and a polymer-specific part with material-specific positive lists, which contain the raw materials that may be used for the production of the respective organic materials.

Plastics, organic coatings and lubricants fall under the scope of the KTW-BWGL. The KTW-BWGL has been legally binding for these since 21.03.2021. In March 2022, elastomers and thermoplastic elastomers (TPE) were also included in the KTW-BWGL.

Product Groups and Test Requirements

The KTW-BWGL divides the products to be tested into groups (P1 to P4), to which a corresponding test procedure with risk-based requirements is assigned. P1 is subject to the strictest requirements, while no testing is required for products in category P4.

Gaskets can be classified in both categories P2 and P3. The classification is based on the surface area in contact with water in the equipment item (for P2 < 10%, for P3 < 1%).

The classification of gaskets into the respective category requires consideration of the specific installation situation. An approval according to category P2 represents the greatest possible safety and covers all possible installation situations for flat gaskets. In category P3, the test requirements are less stringent and the KTW-

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BWGL does not impose any requirements on the formulation. The user must decide whether a test according to category P3 is sufficient for the respective installation situation.

Requirements for Material Composition

The formulation assessment must determine whether the composition requirements of the KTW-BWGL are met. The raw materials used to manufacture an organic material must be listed in the valid material-specific positive list of raw materials (Annex D Elastomers).

Aramid Fibers in the Formulation

Para-aramid fibers are listed in Table D-2 (Annex D of the KTW-BWGL), i.e. they can generally be used if the manufacturer's specific formulation has been tested and approved. This applies to the aramid fibers used by Frenzelit. It should be noted that an aramid fiber must not be used without the corresponding specific formulation approval process.

This specific case-by-case examination is generally required for all polymers. In addition to the aramid fiber, this also applies to the binder used.

Transition Period

Until the end of a transitional period until 1st of July 2026, products with an approval according to the Elastomer Guideline (ELL) may be used in drinking water applications.

EN 16421 / W270 – Microbiological Testing

Depending on the application, sealing materials must be tested for the proliferation of microorganisms. These tests, which were previously carried out in accordance with DVGW Code of Practice W270, have been transferred to European standard EN 16421 (procedure 2) since 2015. The test procedure has been adopted unchanged.

Test Certificate becomes Confirmation of Conformity

The testing institutes only provide test reports but no test certificates. Proof of suitability for drinking water use is therefore provided by means of a Confirmation of Conformity on the basis of the underlying test reports.

Frenzelit Products with Approval According to KTW-BWGL

novapress® 850

Category P2 cold and hot water

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novapress® 880	Category P2 cold and hot water
novapress® UNIVERSAL	Category P2 cold and hot water
novapress® BASIC	Category P2 cold water, P3 hot water
novatec® PREMIUM XP	Category P3 cold and hot water

Application engineering questions? We help you at: application@frenzelit.com

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