

Certification Programme ZP 1000 of DVGW CERT GmbH, Bonn

National Attestation of Conformity of the hygienic Suitability of Drinking Water according to the 1+ System

Change flagging: - The document has been completely revised



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1 Certification procedure

Products Water national (non-harmonised area)

2 Accreditations

An accreditation No. D-ZE-16028-01 exists for the procedure at German accreditation body (die Deutsche Akkreditierungsstelle GmbH) (DAkkS), Berlin.

3 Certification mark

DVGW CERT Hygiene conformity mark



Registration number scheme: HW-1001DN0001

HW = DVGW CERT hygiene conformity mark, 1001 = product code, DN = 2022, 0001 = serial no.

4 Type of certificate and test procedure

The attestation of conformity (5-year term).

5 Scope

This ZP applies to the attestation of conformity of the drinking water hygiene suitability of products, components or component groups according to procedure 1+ as described in the UBA recommendation "Attestation of conformity of the drinking water hygiene suitability of products" for products with a conversion factor $Fc \ge 0.5$ d/dm (product group P1 according to KTW-BWGL, or product group A and B BWGL-Metal).



Product group	Product code	Product type
Hygienic suitability according to system 1+	1001	Components for metallic materials, product group A and B
Hygienic suitability according to system 1+	1002	Plastic components and other organic materials, product group P1
Hygienic suitability according to system 1+	1003	Organic coatings, factory-made, product group P1
Hygienic suitability according to system 1+	1004	Elastomer components, product group P1
Hygienic suitability according to system 1+	1005	Components made of thermoplastic elastomers (TPE), product group P1
Hygienic suitability according to system 1+	1006	Components made of silicones, product group P1 *)
Hygienic suitability according to system 1+	1007	Enamelled components, product group P1
Hygienic suitability according to system 1+	1008	Components made of ceramic materials, product group P1
Hygienic suitability according to system 1+	1009	Cement-bonded linings *)
Hygienic suitability according to system 1+	1010	Organic coatings, produced on site, product group P1
Hygienic suitability according to system 1+	1011	Composite product **), product group P1 and product group A/B
Hygienic suitability according to system 1+	1012	Component group ***)
Hygienic suitability according to system 1+	1040	Glass components, product group P1

*) Currently no assessment basis published! (Assessment is based on information, guidelines and transitional recommendations of the UBA)

**) An "assembled product" is a functional end product, such as a sanitary fitting.

***) A "component group" is a product made up of several components that is not yet a functional end product, e.g. a cartridge for installation in a sanitary fitting.

6 Test laboratories

Testing laboratories accredited in accordance with EN ISO/IEC 17025 for the relevant test bases and contractually bound to DVGW CERT GmbH for carrying out the test methods listed in accordance with UBA-KTW-BWGL and UBA guidelines.



7 Requirements

7.1 General requirements:

The materials that come into contact with drinking water must be hygienically safe and must not impair the quality of the drinking water as specified in the Drinking Water Ordinance. (Drinking Water Ordinance §14)

7.2 Requirements for composite products and component groups

For components of product group A / B and risk group P1 that come into contact with drinking water, a attestation of conformity must be available if the Federal Environment Agency (Umweltbundesamt) has published an assessment basis for the materials/materials from which these products were manufactured. The attestation of conformity must comply with the UBA's recommendation on the suitability of products for drinking water hygiene.

For the attestation of conformity of a composite product, attestations of conformity must be available for the individual components.

To determine the risk group, the surface areas of components that come into contact with water and are made of the same material in a composite product must be summed up together.

Gap or ring seals made of elastomers are considered independently of other components (e.g. diaphragms or moulded parts) made of the same base polymer. If, in composite products, the sum of the surface areas of gap and ring seals results in a surface area percentage ≥ 10 %, the seals remain in risk group P2.

If the UBA does not recommend an attestation of conformity for a component in contact with drinking water, e.g. risk group P4 (surface area < 0.1 %), no verification is required.

Components made of materials that are not regulated by UBA assessment principles must comply with the relevant standards and guidelines for these materials, insofar as these are applicable in the context of fulfilling the requirements of the Drinking Water Ordinance. If these technical standards and guidelines provide for tests as proof, these must be verified by test reports from an accredited test laboratory.

The type testing, in-house and external surveillance of composite products and component groups is described in Table A.6. in the Annex.

The drinking water hygiene requirements are specified for each material.

7.3 Initial inspection of the production facility

The initial inspection of the production facility serves to audit the measures described in the QM-Manual to check the suitability of the materials and products for drinking water hygiene. This includes measures for incoming goods, production and the intermediate and final storage of products.



Suitable measures must be defined for the specific material in consultation with the certification body (WPK). The material-specific features can be found in the UBA recommendation on the attestation of conformity of the drinking water hygiene suitability of products.

During the initial inspection, the equipment used to manufacture the products and the process parameters selected to manufacture the products must be documented. Finally, the products and components must be removed for the type tests and passed on to a test laboratory authorised for the required hygiene tests (point 6).

7.4 Type testing

7.4.1 Recipe testing

The manufacturer must make the formulation available to the certification body or the contractually bound test laboratory for testing in accordance with the material-specific positive lists. The documents are subject to confidentiality. It is advisable that the actual type test is only carried out after a positive formulation test.

7.4.2 Test specimen

A test specimen is a product or a specially manufactured sample that is tested and evaluated as a representative of one or more products.

7.4.3 Migration check

The migration test, if required, must be carried out on representative test specimens taken during the initial inspection.

7.4.4 Metal analysis

The metal analysis, if required, must be carried out on representative test specimens taken during the initial inspection.

7.4.5 **Promotion of microbial growth**

Testing for microbial growth is carried out in accordance with DVGW W 270 or DIN EN 16421, method 1 or 2 on sample plates or, in the case of pipes and hoses, on the finished product using method 2.

7.4.6 Recognition of hygiene test reports on the basis of previous UBA guidelines

If the use of test reports based on UBA guidelines or DVGW W 270 is permitted in the transitional regulations of the Federal Environment Agency, these can be used, taking into account the applicable restrictions.



8 Surveillance

8.1 General information

It must be ensured that the suitability for drinking water hygiene is maintained during manufacture, assembly, storage and transport. The surveillance tests to be carried out are described in the tables in the annex.

8.2 Factory production control (WPK)

The manufacturer must carry out its own production checks in such a way that a reliable assessment of production is possible.

To this end, the certification body shall establish a suitable procedure with the manufacturer for testing the drinking water hygiene suitability of the manufactured products or components. A functioning QM system can be used for this purpose. The type and scope of the WPK measures must be defined for each specific material (see the tables in Annex A).

8.3 Surveillance test (external surveillance; FÜ)

External surveillance is carried out by the certification body or by an authorised inspector of the testing body.

External surveillance has the task of checking the manufacturer's own surveillance (WPK) when inspecting the products on the basis of its organisation and records. This includes checking the use of the materials specified in the attestation of conformity on the basis of goods orders and incoming goods inspections. Furthermore, the tests carried out as part of the WPK to prove the suitability of the products for drinking water hygiene must be checked and compared with external tests.

Sampling of the test specimens for the external surveillance tests takes place at the manufacturer's production facility or central warehouse.

The type and scope of external surveillance is described in the table in Annex A.

9 Labelling

There is no labelling on the product with regard to this ZP.



10 Applicable documents

In the case of undated references, the current edition of the following documents applies:

- Geschäftsordnung zur Zertifizierung von Produkten im nicht harmonisierten Bereich <40014>
- UBA Empfehlung Konformität: Stand 29. Juli 2021 Empfehlung Konformitätsbestätigung der trinkwasserhygienischen Eignung von Produkten
- UBA-Metallbewertungsgrundlage: Stand 10. Juni 2024
 Bewertungsgrundlage f
 ür metallene Werkstoffe im Kontakt mit Trinkwasser des UBA (Metall-Bewertungsgrundlage)
- UBA KTW-BWGL: Stand 07. März 2022
 Bewertungsgrundlage für Kunststoffe und andere organische Materialien in Kontakt mit Trinkwasser (KTW-BWGL) – Allgemeiner Teil
- UBA KTW-BWGL: Stand 07. März 2022
 Anlagen der Bewertungsgrundlage für Kunststoffe und andere organische Materialien im Kontakt mit Trinkwasser (KTW-BWGL) – Polymerspezifischer Teil
- UBA-Information: Stand 07. März 2022
 Übergang von UBA-Leitlinien zur Bewertungsgrundlage für Kunststoffe und andere organische Materialien im Kontakt mit Trinkwasser (Übergangsregelung KTW-BWGL)
- UBA Emails und Keramik-BWGL: Stand 17. Oktober 2023 Bewertungsgrundlage für Emails und keramische Werkstoffe im Kontakt mit Trinkwasser
- UBA Elastomer Leitlinie: Stand 16.März 2016
 Leitlinie zur hygienischen Beurteilung von Elastomeren im Kontakt mit Trinkwasser:2018 und Übergangsregelung vom 23.Februar 2016
 Aktualisierte Positivliste (Anlage 1 Teil 1) zur Elastomer Leitlinie: Stand 13. Juli 2021
- UBA Empfehlung TPE: Stand 11. März 2019 Empfehlung zur hygienischen Beurteilung von Produkten aus Thermoplastischen Elastomeren in Kontakt mit Trinkwasser (TPE-Übergangsempfehlung)
- UBA Empfehlung Silikon: Stand 10. Oktober 2022
 Übergangsempfehlung zur vorläufigen trinkwasserhygienischen Beurteilung von Silikonen im Kontakt mit Trinkwasser (Silikon-Übergangsempfehlung)
- DVGW Arbeitsblatt W 347: Ausgabe Oktober 2023 Hygienische Anforderungen an zementgebundene Werkstoffe im Trinkwasserbereich – Prüfung und Bewertung



- Information zur Bewertung von Ausgangsstoffen zur Herstellung von zementgebundenen Werkstoffen im Kontakt mit Trinkwasser: Stand 6. Oktober 2022
- UBA Geringfügigkeits-Leitlinie: Stand 18. April 2011
 Empfehlung Beurteilung von Stoffen mit bestimmter technologischer Funktion und geringeren Einsatzmengen bei der Rezepturüberprüfung nach den Leitlinien des Umweltbundesamtes zur hygienischen Beurteilung von organischen Materialien im Kontakt mit Trinkwasser (Geringfügigkeits-Leitlinie)
- UBA Modellierungsleitlinie: Stand 07. Oktober 2008 Empfehlung Leitlinie zur mathematischen Abschätzung der Migration von Einzelstoffen aus organischen Materialien in das Trinkwasser (Modellierungsleitlinie)
- DIN EN 16421: Ausgabe Mai 2015 Einfluss von Materialien auf Wasser f
 ür den menschlichen Gebrauch – Vermehrung von Mikroorganismen
- DVGW Arbeitsblatt W 270: Ausgabe November 2007
 Vermehrung von Mikroorganismen auf Werkstoffen f
 ür den Trinkwasserbereich Pr
 üfung und Bewertung

Informative

UBA guidelines valid until 28 February 2025:

- UBA Elastomerleitlinie: Stand 16. März 2016
 Leitlinie zur hygienischen Beurteilung von Elastomeren im Kontakt mit Trinkwasser:2018 und Übergangsregelung vom 23. Februar 2016
 Aktualisierte Positivliste (Anlage 1 Teil 1) zur Elastomerleitlinie: Stand 09. Juli 2021
- UBA Empfehlung TPE: Stand 11. März 2019 Empfehlung zur hygienischen Beurteilung von Produkten aus Thermoplastischen Elastomeren in Kontakt mit Trinkwasser (TPE-Übergangsempfehlung)

11 Period of validity

This certification programme is valid from 07.10.2024 until further notice.



12 Annex

Table A.1:

Scope of testing for type testing, initial inspection, internal and external surveillance of *metallic materials and components*

Feature	Initial inspection/ Type testing	Self-surveillance (WPK)	External surveillance (FÜ)
Material composition	Check whether material is listed in UBA-Metall-BWGL	Checking the upstream supplier on the basis of his	yearly Review of the WPK
	Checking the upstream supplier on the basis of their evidence Inspection certificate according to DIN EN 10204-3.1 with metal analysis Testing the metal composition of the specimens taken during the initial inspection	Evidence Inspection certificate according to DIN EN 10204-3.1 with metal analysis Own metal analysis when remelting alloys	Sampling for testing in the test laboratory



Table A.2:

Scope of testing for type testing, initial inspection, in-house and external surveillance of factory-produced organic materials and components

Feature	Initial inspection/ Type testing	Self-surveillance (WPK)	External surveillance (FÜ)
Material composition	Disclosure of the recipe by the manufacturer Checking the recipe according to material- specific positive lists Checking the upstream supplier on the basis of their evidence	Checking the upstream supplier on the basis of his Evidence Testing the conformity of raw materials Own raw material analysis on receipt of goods, if applicable (e.g. by means of GC- MS) acc. to WPK	yearly Review of the WPK
Testing of hygienic parameters in accordance with KTW-BWGL	Removal of the test specimens during the initial inspection by ZS Carrying out the complete tests in accordance with KTW- BWGL.	Migration test with determination of the odour threshold value (TON) *) or Determination of the TOC or Analysis of a representative substance alternatively External audits of the basic requirements according to WPK (frequency to be determined with ZS)	yearly Review of the WPK Checking the raw materials used Sampling for the purpose of checking the basic requirements in the PL Every 5 years Sampling and complete testing according to KTW- BWGL In the PL

PL = Test laboratory

ZS = certification body

*) For pipes (Fc \geq 5 d/dm):

Migration test of the product and determination of the odour threshold value, or a suitable alternative parameter



Table A.3:

Scope of testing for type testing, initial inspection, in-house and external surveillance of organic materials produced on site (e.g. coatings)

Feature	Initial inspection/ Type testing	Self-surveillance (WPK)	External surveillance (FÜ)
Material composition	Disclosure of the recipe by the manufacturer Checking the recipe according to material- specific positive lists Checking the upstream supplier on the basis of their evidence Review of processing instructions	Checking the upstream supplier on the basis of his Evidence Testing the conformity of raw materials	yearly Review of the WPK
Testing of hygienic parameters in accordance with KTW-BWGL	Production of sample panels in accordance with the processing instructions under the supervision of the ZS **) Removal of the test specimens during the initial inspection by ZS Carrying out the complete tests in accordance with KTW- BWGL.	Migration test with determination of the odour threshold value (TON) *) or Determination of the TOC or Analysis of a representative substance alternatively External tests of the basic properties in accordance with WPK (frequency to be determined with ZS)	yearly Review of the WPK Checking the raw materials used Removal of the test specimens produced under supervision for the purpose of checking the basic requirements. Every 5 years Removal of the test specimens produced under supervision and complete testing in accordance with KTW-BWGL in the PL

ZS = certification body PL = Test laboratory *) For pipes (Fc ≥ 5 d/dm): Migration test of the product and determination of the odour threshold value, or a suitable alternative parameter
**) When producing sample plates, the process parameters specified by the raw material manufacturer, e.g. as stated in the product data sheet/technical data sheet (TDS), must be observed.



Table A.4:

Scope of testing for type testing, initial inspection, in-house and external surveillance of enamellers and enamel frit manufacturers

Feature	Initial inspection/ Type testing	Self-surveillance (WPK)	External surveillance (FÜ)
Material composition	Disclosure of the recipe by the manufacturer of the enamel frit Checking the recipe according to material- specific positive lists Checking the upstream supplier on the basis of their evidence	Checking the upstream supplier on the basis of his Evidence Testing the conformity of raw materials Analysing the composition of the enamel frit (external audit if necessary)	yearly Review of the WPK Sampling for the purpose of testing in the PL in accordance with enamel/ceramic BWGL
Testing of hygienic parameters in accordance with enamel/ceramic BWGL	Production of enamelled sample plates in accordance with the enamel manufacturer's processing instructions under Supervision of the ZS Removal of the test specimens during the initial inspection by ZS Carrying out the complete tests according to enamel/ceramic BWGL	Checking the upstream supplier on the basis of his Evidence Testing the conformity of raw materials Analysis of the composition of the enamel frit and the enamelling (external audit if necessary)	yearly Review of the WPK Checking the raw materials used Every 5 years Removal of test specimens produced under supervision and complete testing of enamel/ceramic BWGL in the PL

ZS = certification body PL = Test laboratory



Table A.5:

Scope of testing for type testing, initial inspection, internal and external surveillance of manufacturers of ceramic materials and components

Feature	Initial inspection/ Type testing	Self-surveillance (WPK)	External surveillance (FÜ)
Material composition	Disclosure of the recipe by the manufacturer Checking the recipe according to material- specific positive lists Checking the upstream supplier on the basis of their evidence Review of processing instructions	Checking the upstream supplier on the basis of his Evidence Testing the conformity of raw materials Analysing the composition (external audit if necessary)	yearly Review of the WPK
Testing of hygienic parameters in accordance with enamel/ceramic BWGL	Removal of the test specimens during the initial inspection by ZS Carrying out the complete tests according to enamel/ceramic BWGL	Checking the upstream supplier on the basis of his Evidence Testing the conformity of raw materials Analysing the composition (external audit if necessary)	yearly Review of the WPK Checking the raw materials used Every 5 years Removal of test specimens and complete testing of enamel/ceramic BWGL In the PL

ZS = certification body

PL = Test laboratory



Table A.6:

Scope of testing for type testing of composite products and component groups

The attestation of conformity hygiene of the assembled product or component group is subject to system 1+. Consequently, an initial inspection of the production facility and an annual external inspection with inspection of the factory production control (document inspection) are required. Components of the assembled product or component group that are subject to risk group P1 or product group A/B are monitored separately as part of ZP 1000.

Requirement	Verification of hygienic suitability in accordance with the	
	UBA recommendation	
Metallic materials		
UBA metal assessment basis	 Attestation of conformity according to system 1+ *) for product group A and B, Acceptance test certificate in accordance with EN 10204 - 3.1 with metal analysis of the semi-finished product from the upstream supplier, Metal analysis by an accredited laboratory on the finished product taken by the inspector. 	
	 Attestation of conformity on the basis of a type test for product groups C and D, Tool certificate according to EN 10204 - 2.2 with metal analysis of the semi-finished product from the upstream supplier For casting processes: Metal analysis of the finished product 	
Organic materials		
UBA KTW-BWGL Appendix A: Plastics and organic materials Appendix B: Organic coatings Appendix C: Lubricants Appendix D: Elastomers Appendix E: Thermoplastic elastomers (TPE)	 Attestation of conformity according to system 1+ *) for risk group P1, based on test reports according to KTW-BWGL Recipe evaluation Initial inspection with sampling Migration test in accordance with DIN EN 12873-1: 2014-09 or 12873-2: 2020-07 on the finished product that was removed by the inspector Testing of microbial growth in accordance with DVGW W 270 or DIN EN 16421, method 1 or 2; **) on sample plates (or on the finished product for pipes and hoses using method 2) 	
	 Attestation of conformity on the basis of a type test for risk group P2, based on test reports in accordance with KTW-BWGL Recipe evaluation Migration test according to DIN EN 12873-1 or 12873-2 on test panel Testing of microbial growth in accordance with DVGW W 270 or DIN EN 16421, method 1 or 2; **) on sample plates 	



Requirement	Verification of hygienic suitability in accordance with the UBA recommendation
	 Attestation of conformity for risk group P3, based on test reports in accordance with KTW-BWGL Migration test according to DIN EN 12873-1 or 12873-2 on test panel (basic requirements) Testing of microbial growth in accordance with DVGW W 270 or DIN EN 16421, method 1 or 2; **) on sample plates
	Risk group P4 - No proof required



Until 28 February 2025: UBA (transfer of the elastomer guideline and the TPE transition recommendation into the assessment basis for plastics and other organic materials in contact with drinking water)	 Test reports: Recipe evaluation according to elastomer guideline or TPE transition recommendation Migration test according to DIN EN 12873-1 or 12873-2 on test panels according to elastomer guideline or TPE transition recommendation Test reports on the testing of microbial growth in accordance with DVGW W 270 or DIN EN 16421, method 1 or 2: **) on sample panels
LIBA silicone transition	Test reports:
recommendation	 Recipe evaluation according to silicone transition recommendation Migration test according to DIN EN 12873-1 or 12873-2 on test panels according to silicone transition recommendation Test reports on the testing of microbial growth in accordance with DVGW W 270 or DIN EN 16421, method 1 or 2; **) on sample panels
	Requirement: M1
Enamels and ceramic materials	
BWGL enamel/ceramic	Attestation of conformity according to system 1+ *) for risk group P1, based on test reports according to BWGL enamel/ceramics - Recipe evaluation - Initial inspection with sampling - Migration test in accordance with DIN EN 12873-1: 2014-09 or 12873-2: 2020-07 on the finished product that was removed by the inspector Enamel: Test plates produced by the enameller (Visual, flavour and microbial tests not necessary)
	Attestation of conformity according to system 1+ *) for risk group P2, based on test reports according to BWGL enamel/ceramics - Recipe evaluation - Migration test in accordance with DIN EN 12873-1: 2014-09 or 12873-2: 2020-07 on the finished product that was removed by the inspector Enamel: Test plates produced by the enamel manufacturer (Visual, flavour and microbial tests not necessary) Attestation of conformity according to system 1+ *) for risk group P3, based on test reports according to BWGL enamel/ceramics - Recipe evaluation
	Risk group P4 - No proof required



Cement-bonded materials	
Information on the assessment of starting materials for the production of cementitious materials in contact with drinking water	 Test reports: Formulation evaluation according to information on the evaluation of starting materials for the production of cementitious materials in contact with drinking water Migration test in accordance with DVGW W 347 on sample plates in accordance with information on the evaluation of starting materials for the production of cementitious materials in contact with drinking water Test reports on the testing of microbial growth in accordance with DVGW W 270 or DIN EN 16421, method 2: **) on sample panels
	For materials whose organic components exceed a proportion of 25 % (based on the cement content), the cementitious material is only considered a filler. These materials must be assessed in accordance with the "Assessment basis for plastics and other organic materials in contact with drinking water (KTW-BWGL)".

*) Analogue to Regulation (EU) No. 305/2011 (CPR)

In case of doubt, the German document is the legally binding one.