Deutsche Akkreditierungsstelle

Annex to the Partial Accreditation Certificate D-PL-17712-01-01 according to DIN EN ISO/IEC 17025:2018

Valid from: **12.05.2023**

Date of issue: 12.052023

This annex is a part of the accreditation certificate D-PL-17712-01-00.

Holder of partial accreditation certificate:

PIA Prüfinstitut für Abwassertechnik GmbH
Hergenrather Weg 30, 52074 Aachen

The testing laboratory meets the requirements of DIN EN ISO/IEC 17025:2018 to carry out the conformity assessment activities listed in this annex. The testing laboratory meets additional legal and normative requirements, if applicable, including those in relevant sectoral schemes, provided that these are explicitly confirmed below.

The management system requirements of DIN EN ISO/IEC 17025 are written in the language relevant to the operations of testing laboratories and confirm generally with the principles of DIN EN ISO 9001.

Tests in the fields:

Physical, physico-chemical, chemical and selected microbiological analysis of water (waste water, process water, raw and drinking water);
Sampling of waste water;
Sampling of raw and drinking water in accordance with the German Drinking Water Ordinance

The testing laboratory is permitted, without being required to inform and obtain prior approval from DAkkS, to use standards or equivalent testing methods listed here with different issue dates. The testing laboratory maintains a current list of all testing methods within the flexible scope of accreditation.

1 Analysis of water (waste water, process water, raw and drinking water)

1.1 Sampling and sample preparation

DIN 38402-A 11 2009-02	Sampling of waste water
DIN ISO 5667-5 (A 14) 2011-02	Water quality – Sampling – Part 5: Guidance on sampling of drinking water from treatment works and piped distribution systems
DIN EN ISO 5667-3 (A 21) 2019-07	Water quality – Sampling – Part 3: Preservation and handling of water samples
DIN 38402-A 30 1998-07	Pretreatment, homogenisation and aliquotation of non-homogeneous water samples
DIN EN ISO 19458 (K 19) 2006-12	Water quality – Sampling for microbiological analysis
SOP 20081 2020-08	Sampling of waste water from small wastewater treatment plants

1.2 Physical and physico-chemical parameters

DIN 38404-C 4 1976-12	Determination of temperature
DIN EN ISO 10523 (C 5) 2012-04	Water quality – Determination of pH
DIN EN 27888 (C 8) 1993-11	Water quality; Determination of electrical conductivity
DIN EN ISO 7027-1 (C 21) 2016-11	Water quality – Determination of turbidity – Part 1: Quantitative method

EPA Method 180.1 1993-08	Determination of Turbidity by Nephelometry

1.3 Gaseous components

DIN EN ISO 5814 (G 22) 2013-02	Water quality – Determination of dissolved oxygen – Electrochemical probe method
DIN ISO 17289 (G 25) 2014-12	Water quality – Determination of dissolved oxygen – Luminescence method

1.4 Summary indices of actions and substances

DIN 38409-H 2 1987-03	Determination of filterable matter and the residue on ignition
DIN 38409-H 9 1980-07	Determination of the settleable matter by volume in water and waste water
DIN EN 872 (H 33) 2005-04	Water quality – Determination of suspended solids – Method by filtration through glass fibre filters
DIN EN ISO 7393-2 (G 4-2) 2019-03	Water quality – Determination of free chlorine and total chlorine – Part 2: Colorimetric method using N,N- dialkyl 1,4-phenylenediamine, for routine control purposes
SM 2540 D 2007-05	Standard Methods for the Examination of Water and Wastewater; Total Suspended Solids

1.5 Microbiological analyses

DIN EN ISO 9308-2 (K 6-1) 2014-06	Water quality – Enumeration of Escherichia coli and coliform bacteria – Part 2: Most probable number method
Colilert®-18/Quanti-Tray®	Detection and enumeration of E. coli coliform bacteria and faecal coliforms

2 Tests in accordance with the German Drinking Water Ordinance – TrinkwV

Sampling

Method	Title
DIN EN ISO 5667-1 (A 4) 2007-04	Water quality – Sampling – Part 1: Guidance on the design of sampling programmes and sampling techniques
DIN ISO 5667-5 (A 14) 2011-02	Water quality – Sampling – Part 5: Guidance on sampling of drinking water from treatment works and piped distribution systems
DIN EN ISO 5667-3 (A 21) 2019-07	Water quality – Sampling – Part 3: Preservation and handling of water samples
DIN EN ISO 19458 (K 19) 2006-12	Water quality – Sampling for microbiological analysis
UBA Recommendation 2018-12	Assessment of the quality of drinking water with respect to the parameters lead, copper and nickel

ANNEX 1: MICROBIOLOGICAL PARAMETERS

Not used

ANNEX 2: CHEMICAL PARAMETERS

Not used

ANNEX 3: INDICATOR PARAMETERS

No.	Parameter	Method
1	Aluminium	Not used
2	Ammonium	Not used
3	Chloride	Not used
4	Clostridium perfringens (including spores)	Not used
5	Coliform bacteria	Not used
6	Iron	Not used
7	Colouring (spectral absorption coefficient Hg 436 nm)	Not used
8	Odour (as TON)	Not used
9	Taste	Not used
10	Colony count at 22 °C	Not used
11	Colony count at 36 °C	Not used
12	Electrical conductivity	DIN EN 27888 (C 8) 1993-11
13	Manganese	Not used
14	Sodium	Not used
15	Organically bound carbon (TOC)	Not used
16	Oxidisability	Not used

No.	Parameter	Method
17	Sulphate	Not used
18	Turbidity	Not used
19	Hydrogen ion concentration	DIN EN ISO 10523 (C 5) 2012-04
20	Calcite dissolving capacity	Not used

Parameters not included in Annexes 1 to 3 of the German Drinking Water Ordinance

Additional periodic testing

Not used

The accreditation does not replace the recognition or approval procedure of the competent authority pursuant to Section 15 (4) TrinkwV.

Abbreviations used:

DIN	Deutsches Institut für Normung (German Institute for Standardization)
EN	European standard
EPA	United States Environmental Protection Agency
ISO	International Organisation for Standardisation
SM	Standard method
SOP	In-house method of PIA Prüfinstitut für Abwassertechnik GmbH