

# Deutsche Akkreditierungsstelle GmbH

## Annex to the Accreditation Certificate D-PL-16069-01-01 according to DIN EN ISO/IEC 17025:2018

Valid from: 20.05.2022

Date of issue: 20.05.2022

Holder of certificate:

**VDZ Service GmbH**  
**Umweltmessstelle**  
**Toulouser Allee 71, 40476 Düsseldorf**

Tests in the fields:

**Determination of inorganic and organic gaseous or particulate airborne substances;**  
**Special sampling of substances requiring additional effort for sampling or analysis (airborne polyhalogenated dibenzo-p-dioxins and dibenzofurans and dioxin-like PCBs); determination of combustion conditions;**  
**Calibration and functional tests of continuously operating emission measuring equipment for inorganic and organic gas or particulate airborne substances; calibration and functional tests of continuously operating emission measuring equipment for inorganic and organic gas or particulate airborne substances in systems in accordance with 4. BImSchV, Annex column 1;**  
**Analytical determination of selected heavy metals in immission samples;**  
**Immission control module**

**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.**

*The management system requirements of DIN EN ISO/IEC 17025 are written in the language relevant to the operations of testing laboratories. Laboratories that conform to the requirements of this standard, operate generally in accordance with the principles of DIN EN ISO 9001.*

*The certificate together with the annex reflects the status as indicated by the date of issue. The current status of any given scope of accreditation can be found in the directory of accredited bodies maintained by Deutsche Akkreditierungsstelle GmbH at <https://www.dakks.de/en/content/accredited-bodies-dakks>.*

Abbreviations used: see last page

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**This document is a translation. The definitive version is the original German annex to the accreditation certificate.**

**1. Determination of emissions in areas regulated by immission control law**
**Measurement procedure as per immission control module and Annex A2 to VDI 4220**
**The fulfilment of the requirements of CEN/TS 15675:2007 is hereby confirmed**
**The requirements for emission measurements in accordance with DIN EN 15259:2008 (Measurement of stationary source emissions – Requirements for measurement sections and sites and for the measurement objective, plan and report) are fulfilled.**

Test area Group I.1:	Determination of emissions (air) §§ 26, 28 BImSchG and corresponding measurement tasks according to regulations for the implementation of the BImSchG		
Component	Standard / Guideline / Technical rule	SRM	Comments Location
<b>General</b>	<b>Reference variables and exhaust gas boundary conditions</b>		
Water vapour	DIN EN 14790:2017-05	<input checked="" type="checkbox"/>	Düsseldorf
Oxygen	DIN EN 14789:2017-05	<input checked="" type="checkbox"/>	Düsseldorf
Volume flow	DIN EN ISO 16911-1:2013-06	<input checked="" type="checkbox"/>	Düsseldorf
<b>ID P</b>	<b>Particulate compounds and chemical compounds adsorbed on</b>		
Total dust at low dust concentrations	DIN EN 13284-1:2018-02 VDI 2066 Bl.1:2006-11	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	Düsseldorf
Substances contained in dust or compounds adsorbed on dust including fractions that can be filtered			
Arsenic (As)	DIN EN 14385:2004-05	<input checked="" type="checkbox"/>	Düsseldorf
Cadmium (Cd)	DIN EN 14385:2004-05	<input checked="" type="checkbox"/>	Düsseldorf
Nickel (Ni)	DIN EN 14385:2004-05	<input checked="" type="checkbox"/>	Düsseldorf
Lead (Pb)	DIN EN 14385:2004-05	<input checked="" type="checkbox"/>	Düsseldorf
Mercury (Hg)	DIN EN 13211:2001-06 und Korr. 1 2005-06	<input checked="" type="checkbox"/>	Düsseldorf Düsseldorf
BaP	DIN EN 1948-1:2006-06	<input checked="" type="checkbox"/>	
<b>ID G</b>	<b>Gaseous inorganic and organic substances</b>		
NO <sub>x</sub>	DIN EN 14792:2017-05	<input checked="" type="checkbox"/>	Düsseldorf
CO	DIN EN 15058:2017-05	<input checked="" type="checkbox"/>	Düsseldorf
SO <sub>x</sub>	DIN EN 14791:2017-05	<input checked="" type="checkbox"/>	Düsseldorf
HCl	DIN EN 1911:2010-12	<input checked="" type="checkbox"/>	Düsseldorf
HF	VDI 2470 Bl. 1:1975-10	<input checked="" type="checkbox"/>	Düsseldorf
Total C (organic)	DIN EN 12619:2013-04	<input checked="" type="checkbox"/>	Düsseldorf

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<b>Test area Group I.1:</b>	<b>Determination of emissions (air) §§ 26, 28 BImSchG and corresponding measurement tasks according to regulations for the implementation of the BImSchG</b>		
<b>Component</b>	<b>Standard / Guideline / Technical rule</b>	<b>SRM</b>	<b>Comments Location</b>
Aldehydes/ketones (e.g. formaldehyde)	VDI 3862 Bl. 2:2000-12	<input checked="" type="checkbox"/>	Düsseldorf
Ammoniak (NH <sub>3</sub> )	DIN EN ISO 21877:2020-01	<input checked="" type="checkbox"/>	Düsseldorf
PAH BTX	VDI 3874:2006-12 DIN CEN TS 13649:2015-03	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	Düsseldorf
CH <sub>4</sub>	DIN EN 25139:2011-08	<input checked="" type="checkbox"/>	Düsseldorf
N <sub>2</sub> O	VDI 2469 Bl. 1:2005-02	<input type="checkbox"/>	Düsseldorf
Biogenic 14CO <sub>2</sub>	DIN EN ISO 13833:2013-07	<input type="checkbox"/>	Düsseldorf
<b>Additional components within the scope of determining emissions</b>			
SO <sub>3</sub>	VDI 2462 Bl. 2:2011-11	<input type="checkbox"/>	Düsseldorf
HBr	In-house method of the VDZ Service GmbH:2020-12	<input type="checkbox"/>	Düsseldorf
Br <sub>2</sub> and HBr	In-house method of the VDZ Service GmbH:2020-12	<input type="checkbox"/>	Düsseldorf
SO <sub>2</sub> continuous	VDI 2462 Bl. 4:1975-08	<input type="checkbox"/>	Düsseldorf
NO <sub>x</sub> aqueous	VDI 2456:2004-11	<input type="checkbox"/>	Düsseldorf
NO <sub>x</sub> continuous	VDI 2456 Bl. 9:1989-02	<input type="checkbox"/>	Düsseldorf
O <sub>2</sub> , CO, CO <sub>2</sub>	ISO 12039:2019-10	<input type="checkbox"/>	Düsseldorf
CO <sub>2</sub>	DIN CEN/TS 17405:2020-11	<input checked="" type="checkbox"/>	Düsseldorf
HF	DIN CEN/TS 17340:2021-01	<input checked="" type="checkbox"/>	Düsseldorf
H <sub>2</sub> S	VDI 3486 Bl. 2:1979-04	<input type="checkbox"/>	Düsseldorf
Benzene	DIN EN 13649:2015-03	<input checked="" type="checkbox"/>	Düsseldorf
Tetrachloroethene	DIN EN 13649:2015-03	<input checked="" type="checkbox"/>	Düsseldorf
Toluene	DIN EN 13649:2015-03	<input checked="" type="checkbox"/>	Düsseldorf
Xylenes	DIN EN 13649:2015-03	<input checked="" type="checkbox"/>	Düsseldorf
Ethylbenzene	DIN EN 13649:2015-03	<input checked="" type="checkbox"/>	Düsseldorf
C <sub>1</sub> -C <sub>2</sub> -compounds continuous	In-house method of the VDZ Service GmbH 2016-09	<input type="checkbox"/>	Düsseldorf

<b>Additional components within the scope of determining emissions</b>			
Phenols	In-house method of the VDZ Service GmbH 2020-12	<input type="checkbox"/>	Düsseldorf
Formaldehyde	DIN CEN/TS 17638:2021-09	<input checked="" type="checkbox"/>	Düsseldorf
Mercury (Hg)	DIN CEN/TS 17286:2019-07	<input checked="" type="checkbox"/>	Düsseldorf
Chrome (Cr)	DIN EN 14385:2004-05	<input checked="" type="checkbox"/>	Düsseldorf
Copper (Co)	DIN EN 14385:2004-05	<input checked="" type="checkbox"/>	Düsseldorf
Kupfer (Cu)	DIN EN 14385:2004-05	<input checked="" type="checkbox"/>	Düsseldorf
Manganese (Mn)	DIN EN 14385:2004-05	<input checked="" type="checkbox"/>	Düsseldorf
Antimony (Sb)	DIN EN 14385:2004-05	<input checked="" type="checkbox"/>	Düsseldorf
Thallium (Tl)	DIN EN 14385:2004-05	<input checked="" type="checkbox"/>	Düsseldorf
Vanadium (V)	DIN EN 14385:2004-05	<input checked="" type="checkbox"/>	Düsseldorf
Cd, Tl, As, Co, Ni, Se, Te, Sb, Pb, Cr, Cu, Mn, V, Sn, Be, Zn	VDI 3868 Bl.1:1994-12	<input type="checkbox"/>	Düsseldorf
PM 10 and PM 2,5	VDI 2066 Bl.10:2004-10	<input type="checkbox"/>	Düsseldorf
<b>ID Sp</b>	<b>Special sampling of substances that require special effort in sampling or analysis</b>		
Sampling procedure for determining the individual isomers of PCDD/PCDF	DIN EN 1948-1:2006-06	<input checked="" type="checkbox"/>	Düsseldorf
Sampling procedure for determining the individual isomers of PCB	DIN EN 1948-4:2006-06	<input checked="" type="checkbox"/>	Düsseldorf

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<b>Test area Group I.2:</b>	<b>Determination of emissions (air) according to No. I.1 and measurement tasks, which require special technical equipment and special experience of the competent personnel</b>		
<b>Component</b>	<b>Standard / Guideline / Technical Rule</b>	<b>SRM</b>	<b>Comments Location</b>
<b>ID G</b>			
Combustion chamber temperature measurement/determination of the residence time in the afterburning zone	BEP RdSchr. d. BMUB v. 23.1.2017 - IG I 2 - 45053/5	<input checked="" type="checkbox"/>	Düsseldorf

<b>Test area Group II.1:</b>	<b>Checking the correct installation and the function as well as calibration of continuously working emission measuring devices Checks and calibrations of measuring devices on systems that require technical equipment and knowledge and experience</b>		
<b>Component</b>	<b>Standard / Guideline / Technical Rule</b>	<b>SRM</b>	<b>Comments Location</b>
<b>Mandatory procedures for P and G identifiers</b>			
Exhaust velocity	DIN EN 16911-1:2013-06 DIN EN 16911-2:2013-06 DIN EN 14181:2015-02 VDI 3950 Bl. 1:2018-06	<input checked="" type="checkbox"/>	Düsseldorf
Volume flow rate	DIN EN 16911-1:2013-06 DIN EN 16911-2:2013-06 DIN EN 14181:2015-02 VDI 3950 Bl. 1:2018-06	<input checked="" type="checkbox"/>	Düsseldorf
Oxygen	DIN EN 14789:2017-05 DIN EN 14181:2015-02 VDI 3950 Bl. 1:2018-06	<input checked="" type="checkbox"/>	Düsseldorf
Water vapour	DIN EN 14790:2017-05 DIN EN 14181:2015-02 VDI 3950 Bl. 1:2018-06	<input checked="" type="checkbox"/>	Düsseldorf
Functionality test	DIN EN 14181:2015-02 VDI 3950 Bl. 1:2018-06	<input checked="" type="checkbox"/>	Düsseldorf
Leak detection	DIN EN 14181:2015-02 VDI 3950 Bl. 1:2018-06	<input checked="" type="checkbox"/>	Düsseldorf

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<b>Test area Group II.1:</b>	<b>Checking the correct installation and the function as well as calibration of continuously working emission measuring devices Checks and calibrations of measuring devices on systems that require technical equipment and knowledge and experience</b>		
<b>Component</b>	<b>Standard / Guideline / Technical Rule</b>	<b>SRM</b>	<b>Comments Location</b>
Testing of the device characteristic	DIN EN 14181:2015-02 VDI 3950 Bl. 1:2018-06	<input checked="" type="checkbox"/>	Düsseldorf
Checking the measurement registration, processing and transmission	DIN EN 14181:2015-02 VDI 3950 Bl. 1:2018-06 BEP RdSchr. d. BMUB v. 23.1.2017 - IG I 2 - 45053/5	<input checked="" type="checkbox"/>	Düsseldorf
Determination of cross-sensitivity	DIN EN 14181:2015-02 VDI 3950 Bl. 1:2018-06	<input checked="" type="checkbox"/>	Düsseldorf
Determination of the response time	DIN EN 14181:2015-02 VDI 3950 Bl. 1:2018-06	<input checked="" type="checkbox"/>	Düsseldorf
Determination of the zero and reference point drift	DIN EN 14181:2015-02 VDI 3950 Bl. 1:2018-06	<input checked="" type="checkbox"/>	Düsseldorf
Determination of the calibration function	DIN EN 14181:2015-02 VDI 3950 Bl. 1:2018-06	<input checked="" type="checkbox"/>	Düsseldorf
Certificate of proper installation	VDI 3950 Bl.1:2018-06	<input checked="" type="checkbox"/>	Düsseldorf
Dust Calibration	DIN EN 13284-2:2018-02	<input checked="" type="checkbox"/>	Düsseldorf
Mercury Calibration	DIN EN 14884:2006-03	<input checked="" type="checkbox"/>	Düsseldorf
Dust Alarm threshold setting	DIN EN 17389:2020-07	<input checked="" type="checkbox"/>	Düsseldorf

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<b>Test area Group II.2:</b>	<b>Checks and calibrations of emission measuring devices according to number II.1 and checks and calibrations of measuring devices on systems that require special technical equipment and special experience of the competent personnel</b>		
<b>Component</b>	<b>Standard / Guideline / Technical Rule</b>	<b>SRM</b>	<b>Comments Location</b>
<b>ID G</b>			
Calibration of combustion chamber temperature measuring devices	BEP RdSchr. d. BMUB v. 23.1.2017 - IG I 2 - 45053/5	<input checked="" type="checkbox"/>	Düsseldorf
Functional testing of temperature sensors to monitor the minimum temperature	BEP RdSchr. d. BMUB v. 23.1.2017 - IG I 2 - 45053/5 In-house method of the VDZ Service GmbH:2021-02	<input checked="" type="checkbox"/>	Düsseldorf

**2. Sampling and analytical determination of particulate immission samples and chemical compounds adsorbed thereon**

VDI 4320 Blatt 2 2012-01	Measurement of atmospheric depositions – Determination of dust precipitation according to the Bergerhoff method
VDI 2267 Blatt 15 2005-11	Determination of suspended matter in ambient air – Measurement of the mass concentration of Al, As, Ca, Cd, Co, Cr, Cu, K, Mn, Ni, Pb, Sb, V, Zn as part of dust precipitation by mass spectrometry (ICP-MS)
VDI 2267 Blatt 16 2007-07	Determination of suspended matter in ambient air – Measurement of the mass concentration of As, Cd, Co, Cr, Cu, Ni, Pb, Sb, V and Zn as part of dust precipitation by atomic absorption spectrometry (AAS)

The listed methods comply with the requirements of the  
"Specialist customer certificate for determination in the area of immission control"  
„LAI Fachmodul Immissionsschutz“ (durch den L/W/V aktualisierte Fassung vom 30.01.2018)

Competence is confirmed for the testing and technical areas of activity regulated by immission control law

Group I No.1: G, P, Sp; Group I No. 2G; Group II No.1P, G; Group II No. 2 G

**Abbreviations used:**

BEP	Bundeseinheitliche Praxis bei der Überwachung der Emissionen (German federal uniform practice for the monitoring of emissions)
BImSchV	Federal Immission Control Ordinance
BMU	Bundesministerium für Umweltschutz (Federal Ministry for the Environment)
VDI	Verein Deutscher Ingenieure (Association of German Engineers)