DAkkS
Deutsche
Akkreditierungsstelle

Accreditation

The Deutsche Akkreditierungsstelle attests with this **Accreditation Certificate** that

Quality Analysis GmbH
Großer Forst 1, 72622 Nürtingen

operates a testing laboratory that fulfills the requirements according to DIN EN ISO/IEC 17025:2018 for those conformity assessment activities specified in detail in the annexes listed below. This includes additional existing legal and normative requirements for the testing laboratory including those in relevant sectoral schemes, provided that these are explicitly confirmed in the annexes listed below.

D-PL-11108-01-01	**Valid from: 29.05.2026**
D-PL-11108-01-02	**Valid from: 13.08.2025**
D-PL-11108-01-03	**Valid from: 13.08.2025**

The management system requirements of DIN EN ISO/IEC 17025 are written in the language relevant to the operations of calibration laboratories and they conform to the principles of DIN EN ISO 9001.

This accreditation was issued in accordance with Art. 5 Para. 1 Sentence 2 of Regulation (EC) 765/2008, after an accreditation procedure was carried out in compliance with the minimum requirements of DIN EN ISO/IEC 17011 and on the basis of a review and decision of the appointed accreditation committees.

This accreditation certificate only applies in connection with the notice of Datum wählen. It consists of this cover sheet, the reverse side of the cover sheet and the corresponding annex

Registration number of the accreditation certificate: **D-PL-11108-01-00**

Berlin, 29.05.2026

Dr.-Ing. Tobias Poeste | Head of Technical Unit

Translation issued: 29.05.2026

This accreditation certificate was issued by the Deutsche Akkreditierungsstelle GmbH (DAkkS). It is digital sealed and valid without signature. It reflects the status as indicated by the date of issue. The current status of any valid and surveyed accreditation can be found in the directory of accredited bodies maintained by Deutsche Akkreditierungsstelle GmbH (www.dakks.de).

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

See notes overleaf

Deutsche Akkreditierungsstelle GmbH

Office Berlin
Spittelmarkt 10
10117 Berlin

The Deutsche Akkreditierungsstelle GmbH (DAkkS) is the entrusted national accreditation body of the Federal Republic of Germany according to § 8 section 1 AkkStelleG in conjunction with § 1 section 1 AkkStelleGBV. DAkkS is designated as the national accreditation authority by Germany according to Art. 4 Para. 4 of Regulation (EC) 765/2008 and clause 4.7 of DIN EN ISO/IEC 17000.

Pursuant to Art. 11 section 2 of Regulation (EC) 765/2008, the accreditation certificate shall be recognised as equivalent by the national authorities within the scope of this Regulation as well as by the WTO member states that have committed themselves in bilateral or multilateral mutual agreements to recognise the certificates of accreditation bodies that are members of ILAC or IAF as equivalent.

DAkkS is a signatory to the multilateral agreements for mutual recognition of the European co-operation for Accreditation (EA), International Accreditation Forum (IAF) and International Laboratory Accreditation Co-operation (ILAC).

The up-to-date state of membership can be retrieved from the following websites:
EA: www.european-accreditation.org
ILAC: www.ilac.org
IAF: www.iaf.nu

Deutsche Akkreditierungsstelle

Annex to the Accreditation Certificate D-PL-11108-01-01 according to DIN EN ISO/IEC 17025:2018

Valid from: **29.05.2026**

Date of issue: 29.05.2026

This annex is part of the Accreditation Certificate D-PL-11108-01-00.

Holder of the Accreditation Certificate:

Quality Analysis GmbH
Großer Forst 1, 72622 Nürtingen

with the location

Quality Analysis GmbH
Großer Forst 1, 72622 Nürtingen

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 they conform to the principles of DIN EN ISO 9001.

Tests in the fields:

Determination of solid contamination of components and fluids using fluid extraction and air extraction, as well as microscopic analysis using light, SEM-EDX, RAMAN- and FT-IR spectroscopy; materialographic examination of metallic and non-metallic materials; analysis of welded joints on metallic materials; coating thickness measurement; measurement of surface oxidation and size grade determination; particle analysis of non-metallic, carbon-based, organic and mineral particles; hardness testing, hardness profile analysis and direct hardness testing of metallic materials; analysis of chemical elemental composition on chemicals, raw materials and materials for the identification and quantification of organic and inorganic substances, residues, deposits and contaminants, as well as for the determination of chemical filmic impurities using gravimetry, GC-FID, FT-IR, and energy-dispersive (EDX) spectroscopy; determination of water content in plastics

Flexible Scope of Accreditation:

The testing laboratory is permitted to use standardised or equivalent test methods listed here with different issue dates without being required to prior inform and obtain approval from DAkkS (flexibilization according to category A).

The testing laboratory has an up-to-date list of all test methods within the flexible scope of accreditation. The list is publicly available on the website of the testing laboratory.

1 Materialography

1.1 Hardness test [Flex A]

DIN EN ISO 18203 2022-07	Steel – Determination of the thickness of surface-hardened layers
DIN EN ISO 6506-1 2015-02	Metallic materials – Brinell hardness test – Part 1: Test method
DIN EN ISO 6507-1 2024-01	Metallic materials – Vickers hardness test – Part 1: Test method
DIN EN ISO 2639 2003-04	Steels – Determination and verification of the depth of carburized and hardened cases

1.2 Analysis of welded joints [Flex A]

DIN EN ISO 9015-2 2016-10	Destructive tests on welds in metallic materials – Hardness testing – Part 2: Microhardness testing of welded joints
DIN EN ISO 17639 2022-05	Destructive tests on welds in metallic materials – Macroscopic and microscopic examination of welds

1.3 Microscopic testing [Flex A]

DIN 30901 2016-12	Heat treatment of ferrous materials – Determination of the depth and form of appearance of the internal oxidation
DIN EN ISO 643 2024-12	Steels – Micrographic determination of the apparent grain size
DIN EN ISO 1463 2021-08	Metallic and oxide coatings – Measurement of coating thickness – Microscopical method

2 Analytical Tests

2.1 Thermal analytics of plastics [Flex A]

DIN EN ISO 11358-1 2022-07	Plastics – Thermogravimetry (TG) of polymers – Part 1: General principles
DIN EN ISO 11357-2 2020-08	Plastics – Differential scanning calorimetry (DSC) – Part 2: Determination of glass transition temperature and step height
DIN EN ISO 11357-3 2018-07	Plastics – Differential scanning calorimetry (DSC) – Part 3: Determination of temperature and enthalpy of melting and crystallization

2.2 Analysis of chemicals, raw materials, unknown substances, materials, and residues, deposits, and unknown substances [Flex A]

DIN ISO 22309 2015-11	Microbeam analysis – Quantitative analysis using energy-dispersive spectrometry (EDS) for elements with an atomic number of 11 (Na) or above
Ph.Eur.11.7 2.2.24 2025-10	Investigation or identification of unknown substances in organic and inorganic materials using Fourier Transform Infrared Spectroscopy (FTIR)
AfPS GS 2019:01 PAH 2020-04	Testing and assessment of Polycyclic Aromatic Hydrocarbons (PAH) in the awarding of the GS Marks

3 Determination of water content in plastics [Flex A]

DIN EN ISO 15512 2019-09	Plastics – Determination of water content

Abbreviations used:

AfPS GS	Product Safety Commission, GS (Tested Safety)-specification
DIN	German Institute for Standardization e.V.
EN	European Standard
IEC	International Electrotechnical Commission
ISO	International Organization for Standardization
Ph.Eur.	European Pharmacopeia
VDA	German Association of the Automotive Industry
VA	Operation procedure of Quality Analysis GmbH

Deutsche Akkreditierungsstelle

Annex to the Accreditation Certificate D-PL-11108-01-02 according to DIN EN ISO/IEC 17025:2018

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

Tests in the fields:
Determination of the technical cleanliness of fluids, parts, and components; Quantitative determination of chemical-filmic contaminants on surfaces following solvent extraction

Within the indicated test areas marked with [Flex A] the testing laboratory is permitted to use standardised or equivalent test methods listed here with different issue dates without being required to inform and obtain approval from DAkkS.
The testing laboratory has an up-to-date list of all test methods within the flexible scope of accreditation. The list is publicly available on the website of the testing laboratory.

1. Determination of the Cleanliness of Components for Fluid Systems [Flex A]

ISO 16232 2018-12	Road vehicles - Cleanliness of components and systems (here: *except Chapter 9.3.3, LIBS* *Chapter 9.3.6, X-ray Microtomography and* *Chapter 9.4, Abbreviated Analysis*)
ISO 16232-2 2007-06	Road vehicles - Cleanliness of components of fluid circuits - Part 2: Method of extraction of contaminants by agitation *(withdrawn standard)*
ISO 16232-3 2007-06	Road vehicles - Cleanliness of components of fluid circuits - Part 3: Method of extraction of contaminants by pressure rinsing *(withdrawn standard)*
ISO 16232-4 2007-06	Road vehicles - Cleanliness of components of fluid circuits - Part 4: Method of extraction of contaminants by ultrasonic Techniques *(withdrawn standard)*
ISO 16232-5 2007-06	Road vehicles - Cleanliness of components of fluid circuits - Part 5: Method of extraction of contaminants on functional test bench *(withdrawn standard)*
ISO 16232-6 2007-06	Road vehicles - Cleanliness of components of fluid circuits - Part 6: Particle mass determination by gravimetric analysis *(withdrawn standard)*
ISO 16232-7 2007-06	Road vehicles - Cleanliness of components of fluid circuits - Part 7: Particle sizing and counting by microscopic analysis *(withdrawn standard)*

ISO 16232-8 2007-06	Road vehicles - Cleanliness of components of fluid circuits - Part 8: Particle nature determination by microscopic analysis *(withdrawn standard)*

2. Determination of Solid Contamination in Fluids [Flex A]

ISO 4405 2022-07	Hydraulic fluid power - Fluid contamination - Determination of particulate contamination by the gravimetric method
ISO 4407 2002-04	Hydraulic fluid power - Fluid contamination - Determination of particulate contamination by the counting method using an optical microscope *(withdrawn standard)*

3. Determination of Particle Contamination on Functionally Relevant Automotive Components [Flex A]

VDA Volume 19 2004	Inspection of Technical Cleanlines - Particulate contamination of functionally-relevant automotive components (here: Chapter *D, E, F.1 to F.4*)
VDA Volume 19.1 2015	Inspection of Technical Cleanliness - Particulate contamination of functionally-relevant automotive components (here: *except Chapter 8.3.3, LIBS* *Chapter 8.3.6, X-ray Microtomography and* *Chapter 8.4, Abbreviated Analysis*)

4. Determination of Chemical and Film-like Contaminants on Surfaces

VA-1090-001 2024-08	Quantitative Determination of Chemical-Filmic Contamination on Surfaces Following Extraction - The total mass of dissolved and detached residues (gravimetry) and the total mass of dissolved organic residues, expressed relative to a tetradecane standard (GC-FID), are determined.

Abbreviations used:

ISO	International Organization for Standardisation
VA-xxx	Procedure Instruction of Quality Analysis GmbH (Internal Procedure)
VDA	German Association of the Automotive Industry (VDA)

Deutsche Akkreditierungsstelle

Annex to the Accreditation Certificate D-PL-11108-01-03 according to DIN EN ISO/IEC 17025:2018

Valid from: **13.08.2025**

Date of issue: 13.08.2025

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

Tests in the fields:

Determination of size and form deviations of components using tactical 3D coordinate measuring machines and computer tomography (CT).

Execution of dimensional prototype testing on components using tactical 3D coordinate measuring machines and computer tomography (CT).

Execution of defect analysis/wall thickness analysis on components using computer tomography (CT)

AA-1030-002 2021-11	Working instruction in the field ICT Determination of size and form deviations of components, defect analyses, assembly analyses, 3D-nominal/actual comparisons using CAD data, execution and documentation of prototype, specimen and serial testing using industrial computer tomography
AA-1030-003 2020-07	Working instruction in the field IMT Determination of size and form deviations of components of different materials, execution and documentation of prototype, specimen and serial testing using tactile 3D coordinate measuring techniques with the optional usage of rotary tables and 3D nominal/actual comparisons using CAD data

Abbreviations used:

AA	Working instruction of Quality Analysis GmbH
DIN	Deutsches Institut für Normung e.V. – German institute for standardization
EN	Europäische Norm – European Standard
ICT	Industrial computer tomography
IEC	International Electrotechnical Commission
IMT	Industrial Measurement
ISO	International Organization for Standardisation