

Deutsche Akkreditierungsstelle GmbH

Entrusted according to Section 8 subsection 1 AkkStelleG in connection with Section 1 subsection 1 AkkStelleGBV Signatory to the Multilateral Agreements of EA, ILAC and IAF for Mutual Recognition





The Deutsche Akkreditierungsstelle GmbH attests that the testing laboratory

EDAG Engineering GmbH Kreuzberger Ring 40, 65205 Wiesbaden

With its testing laboratories at the locations:

Weimarer Straße 14, 80807 München Am Nordring 32, 80807 München Christine-Englerth-Straße 32, 45665 Recklinghausen

is competent under the terms of DIN EN ISO/IEC 17025:2018 to carry out tests in the following fields:

Environmental simulation in the areas temperature, humidity, solar simulation, vibration and mechanical shock as well as in their combination on technical products; geometric deformation analysis of components using 3D measurement technology; investigations into passive vehicle safety in the area of airbags under climatic conditions (static deployment tests);

hydraulic tests; salt spray tests; dynamic component tests; fatigue testing; quasi-static tests using a material testing machine; tests on airflow components.

The accreditation certificate shall only apply in connection with the notice of accreditation of 25.11.2021 with the accreditation number D-PL-11061-03. It comprises the cover sheet, the reverse side of the cover sheet and the following annex with a total of 07 pages.

Registration number of the certificate: D-PL-11061-03-00

Berlin, 25.11.2021 Florian Burkart Head of Technical Unit

Head of Technical Unit

Translation issued: 21.02.2024

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/accredited-bodies-search.html.

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 Office Frankfurt am Main Europa-Allee 52 60327 Frankfurt am Main Office Braunschweig Bundesallee 100 38116 Braunschweig

The publication of extracts of the accreditation certificate is subject to the prior written approval by Deutsche Akkreditierungsstelle GmbH (DAkkS). Exempted is the unchanged form of separate disseminations of the cover sheet by the conformity assessment body mentioned overleaf.

No impression shall be made that the accreditation also extends to fields beyond the scope of accreditation attested by DAkkS.

The accreditation was granted pursuant to the Act on the Accreditation Body (AkkStelleG) and the Regulation (EC) No 765/2008 of the European Parliament and of the Council setting out the requirements for accreditation and market surveillance relating to the marketing of products. 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 signatories to these agreements recognise each other's accreditations.

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 GmbH

Annex to the Accreditation Certificate D-PL-11061-03-00 according to DIN EN ISO/IEC 17025:2018

 Valid from:
 25.11.2021

 Date of issue:
 26.02.2024

Holder of certificate:

EDAG Engineering GmbH Kreuzberger Ring 40, 65205 Wiesbaden

With its testing laboratories at the locations:

Weimarer Straße 14, 80807 München Am Nordring 32, 80807 München Christine-Englerth-Straße 32, 45665 Recklinghausen

Tests in the fields:

Environmental simulation in the areas temperature, humidity, solar simulation, vibration and mechanical shock as well as in their combination on technical products; geometric deformation analysis of components using 3D measurement technology; investigations into passive vehicle safety in the area of airbags under climatic conditions (static deployment tests); hydraulic tests; salt spray tests; dynamic component tests; fatigue testing; quasi-static tests using a material testing machine; tests on airflow components.

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.



Within the scope of accreditation marked with ***), 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 procedures within the flexible scope of accreditation

Within the given testing field marked with *), the testing laboratory is permitted, without being required to inform and obtain prior approval from DAkkS, the free choice of standard or equivalent testing methods.

The listed testing methods are exemplary. The testing laboratory maintains a current list of all testing methods within the flexible scope of accreditation.

The test areas are marked with the following symbols of the locations at which the test procedures from these are carried out:

(W) = Weimarer Straße (N) = Am Nordring (R) = Christine-Englerth-Straße

DAKKS Deutsche Akkreditierungsstelle

Annex to the accreditation certificate D-PL-11061-03-00

1 Environmental simulation in the areas temperature, humidity, solar simulation, salt spray test, vibration and mechanical shock as well as their combination on technical products *

(W)

DIN EN 60068-2-1 Environmental testing - Part 2-1: Tests - Test A: Cold (IEC 60068-2-2008-01 1:2007)DIN EN 60068-2-2 Environmental testing - Part 2-2: Tests - Test B: Dry heat (IEC 60068-2008-05 2-2:2007) DIN EN 60068-2-6 Environmental testing - Part 2-6: Tests - Test Fc: Vibration 2008-10 (sinusoidal) (IEC 60068-2-6:2007) DIN EN 60068-2-14 Environmental testing - Part 2-14: Tests - Test N: Change of 2010-04 temperature (IEC 60068-2-14:2009) DIN EN 60068-2-27 Environmental testing - Part 2-27: Tests - Test Ea and guidance: 2010-02 Shock (IEC 60068-2-27:2008) DIN EN 60068-2-30 Environmental testing - Part 2-30: Tests - Test Db: Damp heat, cyclic (12 h + 12 h cycle) (IEC 60068-2-30:2005) 2006-06 DIN EN 60068-2-38 Environmental testing - Part 2-38: Tests - Test Z/AD: Composite 2010-06 temperature/humidity cyclic test (IEC 60068-2-38:2021) DIN EN 60068-2-52 Environmental testing - Part 2-52: Tests - Test Kb: Salt mist, cyclic 2018-08 (sodium chloride solution) (IEC 60068-2-52:2017) DIN EN 60068-2-53 Environmental testing - Part 2-53: Tests and guidance: Combined 2011-02 climatic (temperature/humidity) and dynamic (vibration/shock) tests (IEC 60068-2-53:2010) DIN EN 60068-2-64 Environmental testing - Part 2-64: Tests - Test Fh: Vibration, 2009-04 broadband random and guidance (IEC 60068-2-64:2008 + A1:2019) DIN 75220 Aging of vehicle components in solar simulation systems 1992-11 DIN EN ISO 9227 Corrosion tests in artificial atmospheres - Salt spray tests (ISO 2017-07 9227:2022) (here: only NSS tests)



	Environmental simulation, vibration and climatic tests as well as hydraulic and fatigue testing according to further test methods	
(W)		
PR 303.5 2010-01	Climate change test for trim parts	
PR 306.5 2014-04	Solar simulation for trim parts	
PR 308.2 2006-04	Climatic testing of adhesive connections and material connections on trim parts	
PR 309.2 2016-03	Vibration test for trim components	
PV 2005 2000-09	Vehicle parts - testing of resistance to climate change	
PV 1200 2004-10	Vehicle parts - testing of resistance to climate change (80 °C / -40 °C)	
SAE J2334 2016-04	Laboratory Cyclic Corrosion Test	
VG VM-202 2020-09	Hydraulic tests on pipes, hoses and their connections with climate and movement overlay	

3 Tensile strength tests on metallic materials and plastics ***

(W)

DIN EN ISO 6892-1 2017-02	Metallic materials - Tensile testing - Part 1: Method of test at room temperature (ISO 6892-1:2016) (here: Method <i>B</i>)
DIN EN ISO 527-1 2019-12	Plastics - Determination of tensile properties - Part 1: General principles (ISO 527-1:2019) (here: Section <i>9</i>)



4	Quasi-static tests with a tension-compression testing machine	
	(W)	
AA-VN 2019-0		Quasi-static tests with a tension-compression testing machine
5	Vibration resistance tests for metallic material samples and components ***	
	(W)	
DIN 50 2016-1		Load controlled fatigue testing - Execution and evaluation of cyclic tests at constant load amplitudes on metallic specimens and components
6	Testing of airbag modules	5 ***
	(N)	·
ISO 12 1996-0		Road vehicles - Airbag components - Part 2: Testing of airbag modules (here: chapter <i>6.1: Static deployment test</i>)
7	Testing of airbag modules according to automobile manufacturer specifications	
	(N)	
VW 82 2010-1		Airbag-System - Airbag-Module (Installation location: steering wheel, instrument panel) - requirements and test conditions (here: 5 - Static deployment test 8.2 - Mechanical shock test 8.4 - Vibration exposure with temperature 8.5 - Climate change test 8.6 - Salt spray test 8.7 – Solar simulation)



VW 82514 2010-11	Airbag-System - Airbag-Module (Installation location: doors) - requirements and test conditions (here: 5 - Static deployment test 8.2 - Mechanical shock test 8.4 - Vibration exposure with temperature 8.5 - Climate change test 8.6 - Salt spray test 8.7 – Solar simulation)
VW 82517 2010-11	Airbag-System - Airbag-Module (Installation location: seats) - requirements and test conditions (here: 5 - Static deployment test 8.2.2 - Mechanical shock test 8.2.4 - Vibration exposure with temperature 8.2.5 - Climate change test 8.2.6 - Salt spray test)
VW 82533 2010-11	Airbag-System - Head impact protection-airbag-module (Installation location: roof frame) - requirements and test conditions (here: 5 - Static deployment test 8.3.7 - Salt spray test)
8 Optical deformation analy	ysis of components using 3D measurement technology
(W)	
AA-VM-005 2021-05	Optical deformation analysis of components using photogrammetry (GOM-Tritop)

AA-VM-006Optical deformation analysis of components using High-Speed-2021-07Photogrammetry



9 Volume flow tests on ventilation components

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				N.
		n	. 1	

Porsche 01.02.34	Test specification for bodywork equipment – air nozzle
2014-08	(here: Part 02 - Function)
EP 87 500.25 2011-06	Air flow system (Heating system and air ducts) - leak test

10	Dynamic component tests	
	(W)	
VG-VN 2020-		Conduction of dynamic component tests (FGS)
UN-R1 2018-	127-02 05	Uniform provisions concerning the approval of motor vehicles with regard to their pedestrian safety performance
Euro N 2018-		European new car assessment programme Pedestrian - Testing Protocol

Abbreviation used:

DIN	German institute for standardization
EN	European Standard
EP	Volkswagen AG Group Standard
Euro NCAP	European New Car Assessment Programme
IEC	International Electrotechnical Commission
ISO	International Organization for Standardization
PV	Volkswagen AG Group Standard
PR	BMW Group Standard
SAE	Society of Automotive Engineers
UN-R	UN-Regulation
VW	Volkswagen AG Group Standard
VG-VM	EDAG Engineering GmbH procedural instructions
AA-VM	EDAG Engineering GmbH work instructions