

# Deutsche Akkreditierungsstelle

## Annex to the Partial Accreditation Certificate D-PL-11087-01-01 according to DIN EN ISO/IEC 17025:2018

**Valid from:** 28.12.2023

**Date of issue:** 28.12.2023

This annex is a part of the accreditation certificate D-PL-11087-01-00.

Holder of partial accreditation certificate:

**Adolf Würth GmbH + Co. KG**  
**Reinhold-Würth-Straße 12-17, 74653 Künzelsau**

with the location

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**Reinhold-Würth-Straße 12-17, 74653 Künzelsau**

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 general with the principles of DIN EN ISO 9001.

**mechanical tests, dimensional tests, measurement of coating thickness, corrosion and spark spectrometric element determination of connectors**

*This certificate annex is only valid together with the written accreditation certificate and 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>.*

Abbreviations used: see last page

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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.

Within the given testing field marked with \*\*, the testing laboratory is permitted, without being required to inform and obtain prior approval from DAkkS, the modification, development and refinement of testing methods. The listed testing methods are exemplary.

The testing laboratory maintains a current list of all testing procedures within the flexible scope of accreditation.

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**1 Mechanical-technological tests**

**1.1 Tensile test \***

DIN EN ISO 898-1 2013-05	<p>Mechanical properties of fasteners made of carbon steel and alloy steel - Part 1: Bolts, screws and studs with specified property classes - Coarse thread and fine pitch thread here: <i>Chapter 9: Test methods</i> <i>Chapter 9.2: Tensile test for finished bolts for determination of tensile strength, <math>R_m</math></i> <i>Chapter 9.4: Tensile test for bolts with reduced loadability due to head design</i> <i>Chapter 9.6: Proof load test for finished bolts</i> <i>Chapter 9.7: Tensile test for machined test pieces</i></p>
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DIN EN ISO 898-2  
2012-08      Mechanical properties of fasteners made of carbon steel and alloy steel -  
Part 2: Nuts with specified property classes - Coarse thread and fine pitch  
thread  
here:  
*Chapter 9: Test methods*  
*Chapter 9.1: Proof load test*

DIN EN 14566  
2009-10      Mechanical fasteners for gypsum board systems - Definitions, requirements  
and test methods  
here: *chapter 5: tests*

DIN 580  
2018-04      Lifting eye bolts  
here: *chapter 6: Testing Minimum breaking strength*

DIN 582  
2018-04      Lifting eye nuts  
here: *chapter 6: Testing Minimum breaking strength*

**1.2 Determination of the strength of connecting elements by means of tensile and pressure tests (2 to 250 kN) and displacement measurement (up to 300 mm) \*\***

PA 04-455  
2019-01      Shear test with various materials

PA 04-456  
2019-01      Axis-parallel pull-out tests with various materials

PA 07-300  
2018-04      Determining the breaking force of adhesive balancing weights

Labor-9-366  
2021-07      QM-test instruction strength-Varifix hinge connector Vario

**1.3 Hardness test \***

DIN EN ISO 6507-1  
2018-07      Metallic materials - Vickers hardness test - Part 1: Test method

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DIN EN ISO 898-1  
2013-05      Mechanical properties of fasteners made of carbon steel and alloy steel -  
Part 1: Bolts, screws and studs with specified property classes - Coarse  
thread and fine pitch thread  
here:  
*Chapter 9: Test methods*  
*Chapter 9.9: Hardness test*  
*Chapter 9.10: Decarburization test*  
*Chapter 9.11: Carburization test*

DIN EN ISO 898-2  
2012-08      Mechanical properties of fasteners made of carbon steel and alloy steel -  
Part 2: Nuts with specified property classes - Coarse thread and fine pitch  
thread  
here:  
*Chapter 9: Test methods*  
*Chapter 9.2 Hardness test*

DIN EN ISO 898-5  
2012-09      Mechanical properties of fasteners made of carbon steel and alloy steel -  
Part 5: Set screws and similar threaded fasteners with specified hardness  
classes - Coarse thread and fine pitch thread  
here:  
*Chapter 9: Test methods*  
*Chapter 9.1: Hardness test*  
*Chapter 9.2: Decarburization test*  
*Chapter 9.3: Carburization test*

**2 Dimensional test**

Würth 1  
2016-02      Dimensional test of connectors

**3 Measurement of coating thickness \***

DIN EN ISO 3497  
2001-12      Metallic coatings - Measurement of coating thickness - X-ray spectrometric  
methods

**4 Corrosion test \***

DIN EN ISO 9227  
2017-07      Corrosion tests in artificial atmospheres - Salt spray tests

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**5 Metal analysis**

Würth 2                      Element determination of C, Si, Mn, P, S, Cr, Mo, Ni, V, W, Co, Cu, Al, B, Ti and  
2015-10                      Nb in steel - Emission spectrometry determination with spark excitation

**Abbreviations used:**

DIN	German Institute for Standardization
EN	European Standard
IEC	International Electrotechnical Commission
ISO	International Organization for Standardization
Labor-x-xxx	Work instruction of the Adolf Würth GmbH + Co. KG
PA xx-xxx	Test instruction of the Adolf Würth GmbH + Co. KG
Würth 0	In house method of the Adolf Würth GmbH + Co. KG

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