

Deutsche Akkreditierungsstelle GmbH

Annex to the Accreditation Certificate D-PL-11087-01-00 according to DIN EN ISO/IEC 17025:2018

Valid from: 09.09.2019

Date of issue: 05.01.2021

Holder of certificate:

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

Tests in the fields:

mechanical tests, dimensional tests, measurement of coating thickness, corrosion and spark spectrometric element determination of connectors, mobile tests on fasteners in construction

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.

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.

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

Abbreviations used: see last page

*The certificate together with its annex reflects the status at the time of the date of issue. The current status of the scope of accreditation can be found in the database of accredited bodies of Deutsche Akkreditierungsstelle GmbH.
<https://www.dakks.de/en/content/accredited-bodies-dakks>*

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1 mechanical-technological tests

1.1 tensile tests

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: <i>Chapter 9: Test methods</i> <i>Chapter 9.2: Tensile test for finished bolts for determination of tensile strength,</i> <i>R_m</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>
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: <i>Chapter 9: Test methods</i> <i>Chapter 9.1: Proof load test)</i>
DIN 580 2018-04	Lifting eye bolts (here: <i>chapter 6: Testing)</i>
DIN 582 2018-04	Lifting eye nuts (here: <i>chapter 6: Testing)</i>
DIN EN 795 2012-10	Personal fall protection equipment - Anchor devices (here: <i>Chapter 5.3: Type A anchor devices</i> <i>Chapter 5.3.2: Deformation</i> <i>Chapter 5.3.4: Static strength</i> <i>Chapter 5.5: Type C anchor devices</i> <i>Chapter 5.5.2 Deformation</i> <i>Chapter 5.5.4 Static strength</i> <i>Chapter 5.6: Type D anchor devices</i> <i>Chapter 5.6.2 Deformation</i> <i>Chapter 5.6.4 Static strength)</i> <i>(These tests are carried out stationary and mobile)</i>

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DIN CEN/TS 16415 2017-11	<p>Personal fall protection equipment - Anchor devices - Recommendations for anchor devices for use by more than one person simultaneously (here: <i>Chapter 5.2: Type A anchor devices</i> <i>Chapter 5.2.3 Static strength</i> <i>Chapter 5.4: Type C anchor devices</i> <i>Chapter 5.4.3 Static strength test (Single Span)</i> <i>Chapter 5.4.5 Static strength test (Multi Span)</i> <i>Chapter 5.5: Type D anchor devices</i> <i>Chapter 5.5.3 Static strength test)</i></p>
Würth 3 * 30.04.2019	<p>Strength tests on fasteners in materials (here: <i>3.1 tensile strength 2-250kN</i> <i>3.2 compressive strength 2-250kN)</i></p>

1.2 hardness tests

DIN EN ISO 6507-1 2018-07	<p>Metallic materials - Vickers hardness test - Part 1: Test method</p>
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 9.9: Hardness test</i> <i>Chapter 9.10: Decarburization test</i> <i>Chapter 9.11: Carburization test)</i></p>
DIN EN ISO 898-2 2012-08	<p>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: <i>Chapter 9: Test methods</i> <i>Chapter 9.2 Hardness test)</i></p>
DIN EN ISO 898-5 2012-09	<p>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: <i>Chapter 9: Test methods</i> <i>Chapter 9.1: Hardness test</i> <i>Chapter 9.2: Decarburization test</i> <i>Chapter 9.3: Carburization test)</i></p>

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2 dimensional control tests

Würth 1 * Dimensional tests of connectors
2016-02

3 coat thickness measuring tests

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

4 corrosion tests

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

5 mechanical fasteners for gypsum board systems

DIN EN 14566 Mechanical fasteners for gypsum board systems - Definitions, requirements
2014-11 and test methods
(here: *chapter 5: tests*)

6 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

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7 Tests on fasteners in construction

ETAG 001 2013-04	<p>Guideline for european technical approval of metal anchors for use in concrete</p> <p>Part 1: Anchors in general (All tests are carried out stationary and with the exception of 5.1.2 (4), 5.1.2 (5) and 5.1.2 (6) also mobile)</p> <p>Part 2: Torque controlled expansion anchors</p> <p>Part 3: Undercut anchors</p> <p>Part 4: Deformation-controlled expansion anchors</p> <p>Part 5: Bonded anchors (All tests are carried out stationary and with the exception of 5.1.2.3, 5.1.2.4, 5.1.2.5, 5.1.2.7 and 5.1.4 also mobile)</p> <p>Part 6: Anchors for multiple use for non-structural applications (2011-01) (All tests are carried out stationary and with the exception of Table 5.1a number 6, Table 5.1b number 6, Table 5.1c number 6(a), 6(b), 8, Table 5.1d number 6, 7, 8, Table 5.1e number 6 also mobile)</p> <p>Annex A: Details of tests</p> <p>Annex B: Tests for admissible service Conditions: Detailed Information (2006-11) <i>(withdrawn document)</i></p>
ETAG 014 2011-02	<p>Guideline for european technical approval of plastic anchors for fixing of external thermal insulation composite systems with rendering <i>(withdrawn document)</i></p>
ETAG 020 2012-04	<p>Guideline for european technical approval of plastic anchors for use in concrete and masonry for non-structural applications</p> <p>Part 1: General</p> <p>Part 2: For use in normal weight concrete</p> <p>Part 3: For use in solid masonry materials</p> <p>Part 4: For use in hollow or perforated masonry (2006-03)</p> <p>Part 5: For use in autoclaved aerated concrete</p> <p>(All tests from part 1 to 5 are carried out stationary and with the exception of 4.4.2.4, 4.4.2.6, 4.4.2.7, 4.4.2.8, 5.4.2.2, 5.4.2.5, 5.4.2.6, 5.4.2.7, 5.4.2.8 and 5.7.3 also mobile)</p> <p>Annex A: Details of tests</p> <p>Annex B: Recommendations for tests to be carried out on construction works</p>

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ETAG 029 2013-04	Guideline for european technical approval of metal injection anchors for use in masonry (All tests are carried out stationary and with the exception of 2.4.1.1.1(a), 2.4.1.1.2(a), 2.4.1.1.2(b), 2.4.1.1.3, 2.4.1.1.4 and 2.4.1.1.6 also mobile) Annex A: Details of tests Annex B: Recommendations for tests to be carried out on construction works <i>(withdrawn document)</i>
EOTA TR 018 2003-03	Assessment of torque controlled bonded anchors
EOTA TR 023 2006-11	Assessment of post-installed rebar connections (All tests are carried out stationary and with the exception of 2.6, 2.7, 2.9, 2.10 and 2.11 also mobile)
EOTA TR 048 2016-08	Details of tests for post-installed fasteners in concrete
EOTA TR 051 2016-12	Recommendations for job site tests of plastic anchors and screws
EAD 330196-00-0604 2016-06	Plastic anchors for fixing of external thermal insulation composite systems with rendering
EAD 330232-00-0601 2016-10	Mechanical fasteners for use in concrete (All tests are carried out stationary and with the exception of 2.2.1.1, 2.2.1.3, 2.2.2.4 and 2.2.2.5 also mobile)
DIN EN 12390-3 2017-09	Testing hardened concrete - Part 3: Compressive strength of test specimens
DIN 1048-5 1991-06	Testing concrete; testing of hardened concrete (specimens prepared in mould) <i>(withdrawn standard)</i>

Abbreviations used:

DIN	German Institute for Standardization
DIBt	German Institute of Construction Technology
EAD	European Assessment Document
EN	European Standard
ETAG	Guideline for European Technical Approval
EOTA	European Organisation for Technical Approvals
ISO	International Organization for Standardization
Würth	In house method of the Adolf Würth GmbH + Co. KG

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