

Deutsche Akkreditierungsstelle

Annex to the Accreditation Certificate D-PL-11282-01-02 according to DIN EN ISO/IEC 17025:2018

Valid from: 23.03.2026

Date of issue: 23.03.2026

This annex is part of the Accreditation Certificate D-PL-11282-01-00.

Holder of the Accreditation Certificate:

**Institut für Galvano- und Oberflächentechnik Solingen GmbH & Co. KG (IGOS)
Grünwalder Straße 29 - 31, 42657 Solingen**

with the location

**Institut für Galvano- und Oberflächentechnik Solingen GmbH & Co. KG (IGOS)
Grünwalder Straße 29 - 31, 42657 Solingen**

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:

Physico-chemical analyses of metallic and other inorganic coatings

*This annex to the certificate was issued by the Deutsche Akkreditierungsstelle GmbH (DAkkS) and is digitally sealed.
This annex to the certificate 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 valid and surveyed accreditation can be found in the directory of accredited bodies maintained by Deutsche Akkreditierungsstelle GmbH (www.dakks.de).*

Abbreviations used: see last page

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Flexible Scope of Accreditation:

Within the indicated test areas the testing laboratory is permitted without being required to prior inform and obtain approval from DAkkS [Flex A] to use standardised or equivalent test methods listed here with different issue dates.

The test methods listed are examples. 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.

Physico-chemical analyses of metallic and other inorganic coatings [FLEX A]

1 Determination of surface density by gravimetry

DIN EN ISO 1460 1995-01	Metallic coatings - Hot dip galvanized coatings on ferrous materials - Gravimetric determination of the mass per unit area
DIN EN 12373-2 1999-02	Aluminium and aluminium alloys - Anodizing - Part 2: Determination of mass per unit area (surface density) of anodic oxidation coatings - Gravimetric method
DIN EN ISO 2106 2020-05	Anodizing of aluminium and its alloys - Determination of mass per unit area (surface density) of anodic oxidation coatings – Gravimetric method
DIN EN ISO 3210 2018-03	Anodizing of aluminium and its alloys - Assessment of quality of sealed anodic oxidation coatings by measurement of the loss of mass after immersion in phosphoric acid/chromic acid solution/s
DIN EN ISO 3892 2001-12	Conversion coatings on metallic materials - Determination of coating mass per unit area - Gravimetric methods (here: <i>chapter 4.2 bonderizing on zinc and cadmium</i>)
DIN EN ISO 9717 2024-10	Metallic and other inorganic coatings - Phosphate conversion coating of metals

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2 Photometrical test

DIN EN ISO 3613
2021-08

Metallic and other inorganic coatings - Chromate conversion coatings on zinc, cadmium, aluminium-zinc alloys and zinc-aluminium alloys - Test methods
(here: *chapter: 5.5.2 Testing for hexavalent chromium in transparent and colored chromate coatings*)

3 Electrochemical test methods

ASTM B 456
2017

Standard Specification for Electrodeposited Coatings of Copper Plus Nickel Plus Chromium and Nickel Plus Chromium
(here: *6.2 Process and Coating Requirements*
6.7 Coating Thickness
6.8 Corrosion Testing
6.9 STEP Test Requirements
6.11 Density and Measurement of the Discontinuities in Chromium (Dubpernell Test))

ASTM B 504
1990 Reapproved 2011

Standard Test Method for Measurement of Thickness of Metallic Coatings by the Coulometric Method

ASTM B 764
2004 Reapproved 2014

Standard Test Method for Simultaneous Thickness and Electrode Potential Determination of Individual Layers in Multilayer Nickel Deposit (STEP Test)

DIN 50022
2007-11

Metallic and other inorganic coatings - Simultaneous thickness and electrode potential determination of individual layers in multilayer nickel deposits (STEP Test)

DIN 53099
2024-12

Metallic coatings - Electrodeposited chromium coatings with chromium(III)-based electrolytes on copper-nickel coatings on plastics - Requirements and test methods

DIN 53100
2020-04

Metallic coatings - Electroplated coatings of nickel plus chromium and of copper plus nickel plus chromium on plastics materials

DIN EN ISO 16866
2023-01

Metallic and other inorganic coatings - Simultaneous thickness and electrode potential determination of individual layers in multilayer nickel deposits (STEP test)

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DIN EN ISO 1456 2009-12	Metallic and other inorganic coatings - Electrodeposited coatings of nickel, nickel plus chromium, copper plus nickel and of copper plus nickel plus chromium (here: Annex A, Determination of Cracks and Pores in Chromium Coatings Annex B, Test Methods for Determining Coating Thickness B.2, Destructive Methods B.3.3, Non-Destructive Methods – X-ray Spectrometric Method Annex E, STEP Test)
DIN EN 2177 2004-08	Metallic coatings - Measurement of coating thickness - Coulometric method by anodic dissolution

Abbreviations used:

ASTM	American Society for Testing and Materials
DIN	Deutsches Institut für Normung
EN	Europäische Norm
IEC	International Electrotechnical Commission
ISO	International Organization for Standardization