Deutsche Akkreditierungsstelle

Annex to the Accreditation Certificate D-PL-21039-03-01 according to DIN EN ISO/IEC 17025:2018

Valid from: **04.03.2025**

Date of issue: 16.04.2026

This annex is part of the Accreditation Certificate D-PL-21039-03-00.

Holder of the Accreditation Certificate:

Framatome GmbH
Paul-Gossen-Straße 100, 91052 Erlangen

with the location

Framatome GmbH
Prüflaboratorium Werkstofftechnik
Paul-Gossen-Straße 100, 91052 Erlangen

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.

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).

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

Tests in the fields:

metallography; electron microscopy of steel and ferrous materials as well as non-ferrous materials; corrosion tests; mechanical-technological material tests

Flexible scope:

Within the scope of accreditation marked with [Flex A], 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. The list is available on the testing laboratory's website.

1 Metallography [Flex A]

ASTM E112-13 2013	Standard Test Methods for Determining Average Grain Size
DIN EN ISO 643 2020-06	Steels – Micrographic determination of the apparent grain size
ISO 643 2019-12	Steels – Micrographic determination of the apparent grain size
DIN EN ISO 1463 2021-08	Metallic and oxide coatings – Measurement of coating thickness – Microscopical method
ISO 1463 2021-05	Metallic and oxide coatings – Measurement of coating thickness – Microscopical method

2 Electron microscopy

FAW-M 0012 G 2024-12	Energy dispersive microanalysis (EDX) using scanning electron microscopy

3 Corrosion tests [Flex A]

ASTM A262-15 2015 (reapproved 2021)	Standard Practices for Detecting Susceptibility to Intergranular Attack in Austenitic Stainless Steels
ASTM G28-02 2022	Standard Test Methods for Detecting Susceptibility to Intergranular Corrosion in Wrought, Nickel-Rich, Chromium-Bearing Alloys
DIN EN ISO 3651-1 1998-08	Determination of resistance to intergranular corrosion of stainless steels – Part 1: Austenitic and ferritic-austenitic (duplex) stainless steels – Corrosion test in nitric acid medium by measurement of loss in mass (Huey test)
ISO 3651-1 1998-05	Determination of resistance to intergranular corrosion of stainless steels – Part 1: Austenitic and ferritic-austenitic (duplex) stainless steels – Corrosion test in nitric acid medium by measurement of loss in mass (Huey test)
DIN EN ISO 3651-2 1998-08	Determination of resistance to intergranular corrosion of stainless steels – Part 2: Ferritic, austenitic and ferritic-austenitic (duplex) stainless steels – Corrosion test in media containing sulfuric acid
ISO 3651-2 1998-05	Determination of resistance to intergranular corrosion of stainless steels – Part 2: Ferritic, austenitic and ferritic-austenitic (duplex) stainless steels – Corrosion test in media containing sulfuric acid

4 Mechanical-technological material tests

4.1 Strength test [Flex A]

DIN EN ISO 6892-1 2020-06	Metallic materials – Tensile testing – Part 1: Method of test at room temperature
ISO 6892-1 2019-11	Metallic materials – Tensile testing – Part 1: Method of test at room temperature
DIN EN ISO 6892-2 2018-09	Metallic materials – Tensile testing – Part 2: Method of test at elevated temperature

ISO 6892-2 2018-03	Metallic materials – Tensile testing – Part 2: Method of test at elevated temperature
DIN EN ISO 6892-3 2015-07	Metallic materials – Tensile testing – Part 3: Method of test at low temperature
ISO 6892-3 2015-04	Metallic materials – Tensile testing – Part 3: Method of test at low temperature
ASTM E8/E8M 22 2022	Standard Test Methods for Tension Testing of Metallic Materials
ASTM E21 20 2020	Standard Test Methods for Elevated Temperature Tension Tests of Metallic Materials
DIN EN ISO 4136 2022-09	Destructive tests on welds in metallic materials – Transverse tensile test
ISO 4136 2022-06	Destructive tests on welds in metallic materials – Transverse tensile test
DIN EN ISO 5173 2023-05	Destructive tests on welds in metallic materials – Bend tests
ISO 5173 2023-01	Destructive tests on welds in metallic materials – Bend tests
DIN EN ISO 5178 2019-05	Destructive tests on welds in metallic materials – Longitudinal tensile test on weld metal in fusion welded joints
ISO 5178 2019-01	Destructive tests on welds in metallic materials – Longitudinal tensile test on weld metal in fusion welded joints
ASTM E399-20 2020	Standard Test Method for Linear-Elastic Plane-Strain Fracture Toughness of Metallic Materials
ASTM E1820-22e1 2022-09	Standard Test Method for Measurement of Fracture Toughness
ASTM E1921-22 2022	Standard Test Method for Determination of Reference Temperature, T_0, for Ferritic Steels in the Transition Range

DIN 50106 2016-11	Testing of metallic materials – Compression test at room temperature
DIN EN ISO 148-1 2017-05	Metallic materials – Charpy pendulum impact test – Part 1: Test method
ISO 148-1 2016-10	Metallic materials – Charpy pendulum impact test – Part 1: Test method
DIN EN ISO 9016 2022-07	Destructive tests on welds in metallic materials – Impact tests – Test specimen location, notch orientation and examination
ISO 9016 2022-03	Destructive tests on welds in metallic materials – Impact tests – Test specimen location, notch orientation and examination
DIN EN ISO 14556 2017-05	Metallic materials – Charpy V-notch pendulum impact test – Instrumented test method
ISO 14556 2015-09	Metallic materials – Charpy V-notch pendulum impact test – Instrumented test method

4.2 Hardness test [Flex A]

DIN EN ISO 6506-1 2015-02	Metallic materials – Brinell hardness test – Part 1: Test method
ISO 6506-1 2014-10	Metallic materials – Brinell hardness test – Part 1: Test method
DIN EN ISO 6507-1 2018-07	Metallic materials – Vickers hardness test – Part 1: Test method
ISO 6507-1 2018-01	Metallic materials – Vickers hardness test – Part 1: Test method
DIN EN ISO 6508-1 2016-12	Metallic materials – Rockwell hardness test – Part 1: Test method
ISO 6508-1 2016-08	Metallic materials – Rockwell hardness test – Part 1: Test method

Abbreviations used:

ASTM	American Society for Testing and Materials
DIN	German institute for standardization
EN	European Standard
FAW	Technical Instruction of Framatome GmbH
IEC	International Electrotechnical Commission
ISO	International Organization for Standardization