Research Center for Steel, Timber and Masonry

Karlsruhe Institute of Technology (KIT)
Kaiserstraße 12, 76131 Karlsruhe, Germany

Director: Univ.-Prof. Dr.-Ing. P. Dietsch und Univ.-Prof. Dr.-Ing. T. Ummenhofer

CERTIFICATION PROGRAM

– ZP01 –

Corrosion Protection Systems for thin-walled cold-formed components

This certification program includes 24 pages

Version dated 5 February 2024

Table of contents

Attachments:

Preface

Demands are made on the durability of construction products through national regulations and specifications resulting from the Regulation (EU) No. 305/2011 of the European Parliament and of the Council of 9 March 2011 laying down harmonized conditions for the marketing of construction products and repealing Council Directive 89/106/ECC (CPR). The manufacturer of the corresponding construction product is responsible for fulfilling these requirements.

Essential steps of production that might influence the constancy of performance of the construction product must be subject to factory production control. The manufacturer of the construction product is responsible for ensuring that corresponding documentation is available and the associated evidence is provided. Within the scope of certifying a construction product, the efficiency of the factory production control must be additionally checked randomly through a recognized or notified body.

To avoid that the manufacturers of construction products (manufacturers of trapezoidal profiles, sandwich elements, etc.), have to perform regular monitoring of the factory production control (FPC) at the manufacturer of the corrosion protections systems and to avoid multiple monitoring through the respectively commissioned certification body of the manufacturer of construction products, the Research Center for Steel, Timber and Masonry (VA) as a recognized and notified body of construction products offers die Certification of coating plants and their coating systems from one source. Within the scope of this certification process, the requirements of the relevant national and harmonized European technical regulations as well as those of the Construction Products Regulation (CPR) are considered.

The certification shall offer a simple possibility for the manufacturers of construction products, to provide the required proofs of the durability of the corrosion protection systems without any reduction in quality and to limit the effort for manufacturers of corrosion protection systems and corresponding construction products to a reasonable level.

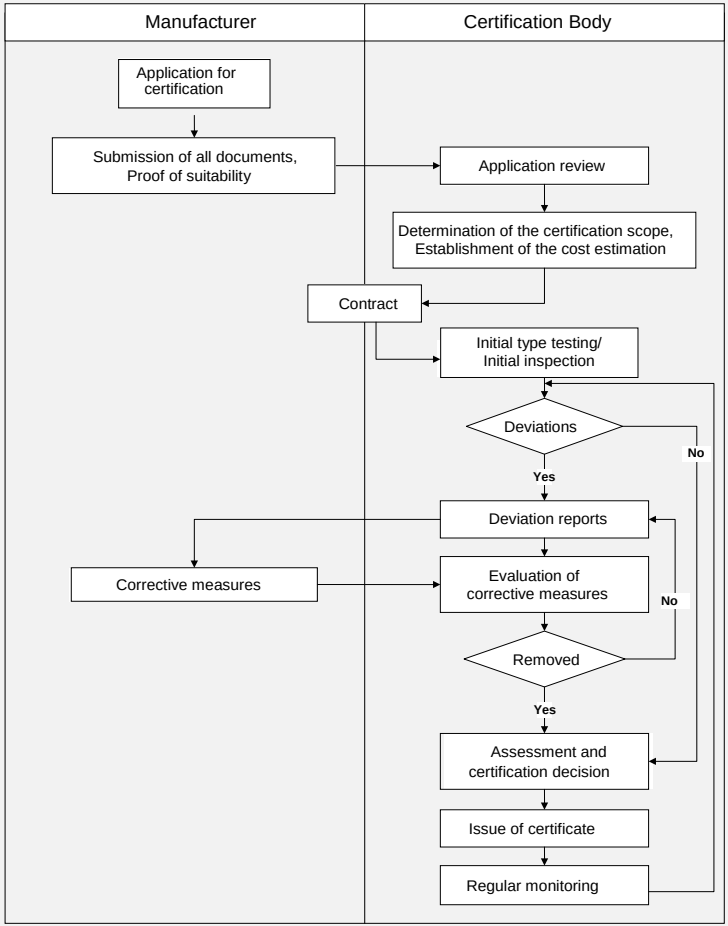
The certification procedure, its process and requirements as well as the relationship between the Certification Body (VA) and the manufacturer of the corrosion protection system are described below. The certification program forms the basis for the certification of the corrosion protection systems and the factory production control of manufacturers of continuously hot-dip coated and coil-coated strip and metal sheet according to DIN 55634-1:2018-03 and/or in compliance with EN 1090.


STAHLBAU
Steel Construction

1 Certification process

1.1 Scope and selection of process

The certification program is created in a way that a combined certification according to DIN 55634-2:2018-03 and DIN EN 1090-4:2018 is possible. This is reasonable as both application standards are often used to the same extent by the market for construction products made of strip and metal sheet. Both regulations are very similar in its requirements and therefore allow a combined certification. Furthermore, the certification program offers the option of considering the fire behaviour as well as the corrosion protection classes CPI respectively the corrosion resistance categories RC according to EN 10169:2010+A1:2012.
The manufacturer has the choice to apply for certification according to only one of the above-mentioned standards.



1.2 Certification process

Fist, the manufacturer has to submit a written application for certification, on the basis of which a corresponding contract is concluded. The certification process consists of the three steps listed below.
The basis of the certification process is the **evaluation** consisting of initial type testing, initial inspection and the regular monitoring of the factory production control (FPC) of the manufacturer through audits and product testing according to DIN 55634-2:2018-03. The evaluation includes

- The preparatory activities to obtain all necessary information and parameters for the certification process and to plan the required steps for audits and tests (plan of the sampling, selection of scope of sampling, definition of requirements), the investigative activity (initial inspection or regular monitoring, sampling and product testing) to determine the information needed on the fulfilment of specified requirements as well as
- the comparison of the information and input parameters with the specified requirements.

On the basis of the evaluation, an **assessment** is conducted. The assessment verifies, whether the evaluation and its results are suitable, appropriate and effective with regard to the fulfilment of the defined requirements, and whether the fulfilment of the defined requirements has been proven.
On the basis of a positive evaluation **certification** is granted.
The certification process is shown schematically in the following process description.

1.3 Application for certification, application review and contract

The start of activities within the scope of the certification procedure requires a written application. The application is provided on request. The manufacturer has to submit all documents describing the products to be certified completely and clearly identifiable describe together with the application. An essential element of the application is the proof of the basis suitability (proof of suitability) of the corrosion protection system for use in the intended corrosivity category.
After the application has been reviewed and the completeness of documents as well as fulfilment of the formal requirements have been confirmed, the scope of certification is determined.
The manufacturer then receives a cost estimation for the certification procedure based on the currently valid price list of the VA.
The costs for the certification of a corrosion protection system are to be borne by the manufacturer. The costs depend on the type of coating system,

the application method and the scope of work to be performed.
A contract is drawn up with or following the cost estimation, which regulates the monitoring and certification of the corrosion protection systems and the manufacturing plants, considering the requirements of the Construction Products Regulation, the Building Codes of the German countries and DIN EN ISO/IEC 17065. The contract is drawn up in two identical copies in German or English. The manufacturer bears the costs for the translation.
A contract loses its validity e.g. on expiry of the technical regulation or on termination. Terminations must be made in writing.
If necessary, a pre-audit can be performed on the basis of an order, in which, for example, the special situation of the company is ascertained so that this can be considered in preparation.

1.4 Evaluation

1.4.1 Initial inspection

The initial inspection in the manufacturing plant includes the inspection and assessment of the resources available for production (facilities, staff and operational equipment) in order to determine, whether they meet the requirements for the production of coating systems specified in DIN 55634 Parts 1 and 2 as well as EN 1090-4:2018. This includes in particular the inspection and assessment of the factory production control (FPC).

1.4.2 Regular monitoring

Regular monitoring includes random checks and inspections of the factory production control (FPC) through an audit at the manufacturing plant and product testing according to DIN 55634-2:2018-03 on samples within the scope of the audit.

1.4.3 Initial type testing

The initial type testing is an extensive test of the corrosion protection system performed by the VA. As part of the initial type testing, the proof of suitability is checked. The initial type testing is required for new products, when changing the corrosion protection system or application method or after 5 years. The initial type testing includes the product test according to DIN 55634-2:2018-03, Table 1 and DIN EN 1090-4:2018, Table E.9.
The precondition for performing the initial type testing is a proof of the basic suitability (proof of suitability) of the coating system for application in the intended corrosivity category and for the intended duration of protection provided by the manufacturer.
A report on the initial type testing is issued. The report contains all the information required to clearly identify the coating system as well as the levels and classes of performance characteristics achieved. The validity period of the initial type testing is defined in the report.

1.4.4 Frequency of evaluation

An initial type testing has to be performed according to DIN 55634 for coating systems to be used in corrosivity category C2 and higher every 5 years or when the corrosion protection system or application procedure is changed. The regular monitoring of the factory production control and the product testing are performed at least once a year for products to be used in corrosion categories C3 and higher.
The interval for regular inspections in accordance with EN 1090-4:2018 is based on the specifications of EN 1090-1:2009+A1:2011 and is between one and three years.

1.4.5 Performing an audit

Audit plan
Before an audit is performed, an audit plan is sent to the manufacturer. An audit plan contains at least the following elements:

- Time schedule of the audit with outline
- Contents of the audit

In general, an audit is structured as follows:

- Introduction with explanation of the targets and scope of the audit
- Inquiry of general data (company contact data, organizational chart)
- Inquiry of technical questions
- Review of the factory production control (FPC)
- Plant inspection with examination of the implementation of the factory production control (FPC)
- Sampling and specification of samples for product testing
- If deviations are ascertained: preparation of deviation reports
- Final discussion and signing of the deviation reports

Checklist
The audit is performed on the basis of a checklist CL-VAS-006. The check list is sent to the manufacturer prior to the audit. The manufacturer fills in the checklist and sends it back to the VA. The checklist pre-filled by the manufacturer will serve as the basis for the audit.

Review of extensive or subsequently submitted documents
Extensive or subsequently submitted documents are reviewed after the audit of the manufacturing plant within 4 weeks after receipt. The responsible person at the manufacturing plant is informed immediately of any resulting deviations.

Non-conformities

If non-conformities from the technical specifications are identified during evaluation, the auditor draws up a non-conformity report for each non-conformity determined. The auditor classifies the non-conformities according to the following criteria:

Marginal deviation

Non-conformity concerning a specification requirement or otherwise specified requirement, from which no effect on the result of the conformity assessment is expected and does not question the basic effectiveness of the FPC system. By correcting marginal non-conformities, an improvement of the process is expected.

Marginal non-conformities can be transformed into scheduled tasks that must be implemented at the latest by the following regular audit.

Significant non-conformity

Non-conformities concerning a specification requirement or otherwise specified requirement, from which is not expected to have a direct effect on the result of the conformity of the product and does not question the basic effectiveness of the FPC system.

The implementation of a suitable corrective measure is mandatory for granting or confirming the maintenance of the certification.

The maximum period for implementing the corrective measure is 2 months (in justified exceptional cases and for initial certification 4 months). If the non-conformity has not been eliminated after this period, the certification will be suspended. If only a specific area of the certification is affected, this may lead to only a partial suspension.

Serious non-conformity

Non-conformity concerning a specification requirement or otherwise specified requirement that causes or may cause a non-conform product or non-conformity that questions the fundamental effectiveness of the FPC system. Repeated occurrence of a significant non-conformity concerning the same specification requirement. The implementation of a suitable corrective measure is mandatory for granting or confirming the maintenance of the certification. In case of initial certification, the deadline for eliminating the non-conformity is unchanged 4 months since no certificate has yet been issued.

In case of an already issued certification, immediate measures may have to be taken and verified within a period of clearly less than 2 months. The deadlines are set by the inspector depending on the significance of the deviation. It must be ascertained whether products have already

been marked unjustifiably with the certification mark due to the detected deviation and whether these products must be withdrawn from the market and the certification mark removed. If the deviation cannot be rectified immediately, the certification will be restricted by the affected areas or the certification may be temporarily suspended.

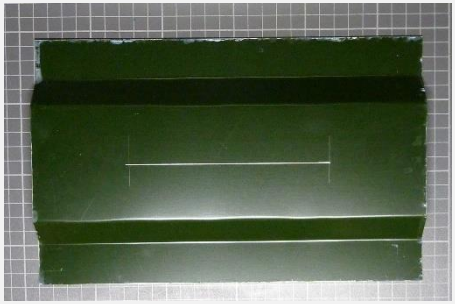
The auditor determines whether an audit must be performed at the manufacturing plant to prove that the deviation has been corrected or whether the nonconformity can be corrected by submitting suitable documents. For each deviation, a deadline for the removal of the deviation is set corresponding to its classification.

The auditor checks the suitability of the proposed corrective measure and confirms its suitability with his signature. Depending on the complexity of the deviation, the proposed corrective measures and its review may be submitted in writing up to two weeks after the audit. This has no effect on the deadlines set.

After implementing the appropriate corrective measure, the person responsible at the manufacturing plant sends the deviation report with the described corrective measure and the documents required to verify the elimination of the deviation to the auditor in due time.

The auditor evaluates the effectiveness of the corrective measure and confirms his decision with his signature.

In the case that the deviation has not yet been eliminated, the author sends a new deviation report to the person responsible at the manufacturing plant.



Sampling

The samples that are taken have a size of 400 mm x coil width. Samples are taken from three different batches (coils) of each coating system, covering the light, medium/metallic and dark colours. During regular monitoring, one sample is taken from each batch, while during the initial testing, two samples with the given dimensions are taken from each batch.
The samples taken are recorded with the main identification characteristics in a sampling protocol. The person responsible at the manufacturing plant confirms the accuracy of the identification characteristics by signing and receives a copy of the sampling protocol. The evaluation of the test results is performed by the inspector within 4 weeks after receipt of the test results. Any resulting deviation from the technical regulations are reported immediately to the person responsible at the manufacturing plant.

Report

A report is prepared by the VA for each audit performed.
This report presents the results of an audit and/or product inspection with reference to the technical regulations and fulfilment of the requirements. A list of the deviations identified and, if applicable, the correction of the deviations is recorded in the report. A recommendation for certification is made in the “Summary” section. The certification decision by the VA is also documented in the “Summary” section.
The preparation of the report is done at the latest:

- 4 months after the audit with no or marginal deviations,
- 4 months after the longest deadline for significant or serious deviations or
- 4 months after product testing, if product tests are to be carried out.

The reports are sent to the manufacturer in digital form.

1.5 Certification

1.5.1 Assessment and certification decision

Before a certification can be issued, an objectively comprehensive and documented certification decision must be made. This is based on the initial inspection performed or a regular monitoring including product testing as well as the initial type testing. For this purpose, the evaluation is assessed with regard to suitability, appropriateness and effectiveness. In addition an assessment of the results is made with regard to the fulfilment of the requirements specified for the product / factory production control.
The decision for certification is confirmed with a signature in the field provided in the report. In case of a negative decision, a statement of reason is also provided.

1.5.2 Declaration of certification

A positive assessment results in the issuing of a certificate.
The certificate is issued in German, and on request in English language, and is valid for a period of 5 years, but at most until the end of the validity of the initial inspection. The certificate in German language is decisive.
The certificate contains at least the specifications required according to DIN 55634-2:2018-03 as well as a reference to the fulfilment of the requirements of the factory production control for application of the coils for production of products according to EN 1090 Part 2 or Part 4. In addition, classes for fire behaviour according to DIN EN 13501-1 and corrosion protection classes CPI respectively corrosion resistance category RC according to EN 10169:2010+A1:2012 can be included in the certificate.

1.5.3 Publication of the certificate

The certification is published on the homepage of the Research Center for Steel, Timber and Masonry (VA). The directory contains:

- Name and address of the manufacturer
- Designation of the certified coating system
- Nominal layer thickness of the certified coating system
- Period of validity of the initial type test
- Period of validity of the certificate
- Corrosivity category and duration of protection

1.5.4 Maintaining certification in case of changes of the requirements

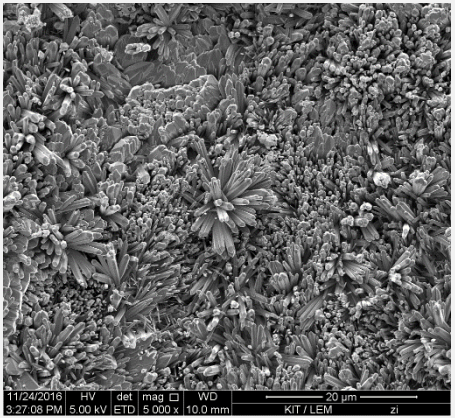
The manufacturer has to inform the VA about changes of the requirements for certification. Changes of conditions regarding maintaining certificates include among others

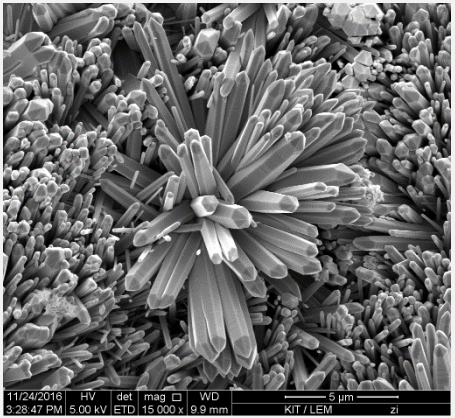
- Changes in the design or specification of the certified corrosion protection system
- Changes of the basic technical specification
- Changes in the ownership, organizational or personnel structure
- Significant changes in the production process
- Significant changes in the factory production control
- Other – comparable – changes that may have an impact on production and conformity of the product
- The changes are reviewed by the VA and the necessary measures are determined. The measures may include:
  - Maintaining certification based on review of objective evidence
  - Special inspection / product testing
  - Suspension of certification

1.5.5 Amendment / change of certificates

If certificates are amended or changed, the existing certificate must be replaced. The VA provides the current certificate with an invalidity notice stating the date of invalidity and issues a new/changed certificate.
The period of validity of the new certificate can be redefined, but may not exceed 5 years or the period of validity of the initial inspection. The manufacturer receives the newly issued certificate and the invalidated certificate by e-mail. Reasons for an amendment or change can be

- expansion/reduction of the product spectrum
- change of the technical specification
- withdrawal of parts of the certification





1.5.6 Withdrawal of certificates

In case of repeated or serious irregularities, with the result that the conformity of the product/factory production control with the provisions of the technical regulations is no longer ensured or in case of default of payment, the VA is entitled to withdraw the certificate. Further details are regulated in the certification contract.

1.5.7 Suspension of certification

The certification is suspended if the regular monitoring of the plant and the factory production control or the product testing cannot be performed within the specified time interval, e.g. due to suspension of production. The suspension of the certification can only be cancelled, if at least one inspection of the manufacturing plant and the factory production control has been conducted after suspension. The manufacturer is prohibited from labelling products manufactured during the suspension of certification with a reference to certification. However, this does not apply for the stock produced before suspension.

The manufacturer can apply the suspension of certification in writing to the VA. The reason and the expected duration of the suspension must be stated in the application. In addition, the manufacturer has to commit contact the VA in due time before restarting production. A suspension by the VA is possible, e.g. if contractual conditions are not fulfilled (such as default of payment or repeated rejection of an inspection).

1.6 Publication, advertising

The manufacturer is authorized to refer to the certification in his business documents as well as on the product, its packaging, accompanying commercial documents, on the associated test certificates and delivery notes, on the internet and other communication media. The reference may only refer to the certified coating system and manufacturing plant. The connection between the specific product and the reference must be clearly recognizable.

A reference to the certification is not permitted to be affixed on a product or used in a way to suggest that it refers to the conformity of a product. The rights and obligations to affix the required marks of conformity remain unaffected.

A reference to the certification is restricted to the scope of certification. In this case, it is especially necessary that the certified product is explicitly mentioned. This is mandatory to avoid the appearance of a misleading reference to non-certified products.

Any use of the certification that might discredit the VA as well as statements on the certification that could be considered misleading or unjustified are not permitted.

The right to use the certification expires automatically on the expiry date of the certification, as well as after suspension or withdrawal of the certification. In these cases, the manufacturer is no longer permitted to use existing documents, records etc. that contain a reference to the certification. In electronic media (internet, communication media etc.), references to the certification must be removed. This does not affect the references on the products themselves that have been affixed in the period of validity of the certification.

The product certificate must be disclosed to third parties on request.

The manufacturer may only pass on certificates to third parties in unabridged form.

Also reports from the VA may only be passed on to third parties in unabridged form. Passing on of extracts requires a written approval of the VA.

The VA is authorized to publish information regarding the validity of issued certificates, stating the manufacturer, the certificate number and the corrosion protection system.

1.7 Records

Records, applications, checklists, reports, certificates, etc. prepared as part of the certification process, as well as the manufacturer's records of factory production control and the results thereof, must be kept for a period of at least five years.

2 Technical requirements

2.1 Proof of suitability

For each corrosion protection system to be certified, the manufacturer has to provide a proof of the fundamental suitability of the corrosion protection systems for use in the intended corrosion protection category and the envisaged duration of protection. For this purpose, DIN 55634-1:2018-03, section 5, DIN 55634-2:2018-03, section 4.3.4 and DIN EN 1090-4:2018, Annex E.2.3.2 must be applied.
The verification document must include a clear definition of the coating system containing at least the following elements:

- Coating mass and the type of metal coating
- Any passivation or post-treatment of the metal coating and the products used for this purpose
- Pre-treatment steps and products used
- Number of layers, type of binding material and nominal thickness of the single layers
- Manufacturer of the coating materials
- Test results and evaluation of the test results
- Intended corrosivity category and expected duration of protection
- If applied for, the fire behaviour class. The fire behaviour class can only be considered in the certification, if
  - tests and classification have been performed by a notified or recognized body or
  - a decision of the European Commission is available for the coating system.
- if applied for, the corrosion protections classes CPI or corrosion resistance category RC in accordance with DIN EN 10169:2010+A1:2012

Supplementary regulations for maximum permitted layer thickness:

The measured layer thickness of the organic coating for samples for the initial type testing shall not exceed the nominal layer thickness. If the average value of the measured layer thickness of the coating system exceeds the nominal layer thickness, the minimum layer thickness of the coating systems has to be increased for production by the differential amount between the measured average value and the nominal value.

2.2 Factory Production Control (FPC)

For the implementation and conduction of the factory production control, the standards EN 1090-1:2009+A1:2011, EN 1090-2:2018, EN 1090-4:2018, DIN 55634-1:2018-03 and 55634-2:2018-03 apply. As far as the corrosion protection classes CPI or corrosion resistance category RC according to EN 10169:2010+A1:2012 are intended to be included in the certification, the tests specified in EN 10169:2010+A1:2012 are to be considered in the factory production control.
The results of the factory production control must be documented and evaluated according to the requirements of the VA, preserved for at least 5 years and submitted to the VA on request.

Supplementary regulations for testing the layer mass of the metal coating:

The measurement of the mass of the metal coating can be done according to the internal procedure of the manufacturer. For the in-house procedure, a sufficient validation is required. A random check of the coating mass of at least 1 % related to the number of test units (mother coils) is to be performed using the gravimetric method according to DIN EN 10346.

If an average value from a triple spot sample of the layer mass is below the requirements, the verification of the in-house procedure must be questioned. Suitable measures must be taken that at least contain a statistical evaluation of the test results.

Supplementary regulations for examining the adhesion of the metal coating:

The adhesion of the metal coating is to be checked on each test unit according to DIN EN 10346. The test can be performed according to an in-house procedure agreed with the VA.
In arbitration cases, a bending test according to DIN EN ISO 7438 or DIN EN 13523-7 with an adhesive tape pull-off in accordance with EN 13523-7 must be performed. For all products, bending with an intermediate layer (1 x t) must not lead to a loss of adhesive strength.

3 Complaints and objections of third parties regarding the certificate holder

Complaints and objections by third parties regarding the manufacturer (certificate holder) must be made in written form. Complaints have to be formulated in comprehensible and concrete terms. Incoming complaints are forwarded to the Head of the Certification Body and the QM department of the VA.

After receiving a complaint, the certificate holder is asked by the VA for a statement on this matter. Both, the source of complaint as well as the information of the manufacturer are treated confidentially.
Complaints can be followed up in the following ways (if necessary, combinations of several points):

- Clarification of misunderstandings between the certificate holder and the complainant
- Written request to the certificate holder to eliminate the existing deficiencies immediately within a reasonable period of time
- Performance of a special inspection
- Withdrawal of the certificate
- Involvement of the responsible supervisory authorities in case of abusive use of certificates

4 Maintenance and improving the certification program

The VA maintains a committee that evaluates the performance of the certification program on a regular basis in order to identify the validity and aspects requiring improvement. For this purpose feedback from interested parties is considered. The standards underlying the certification program are regularly checked to ensure they are up to date. If changes are made to the relevant documents, the committee has a process in place to adopt changes into this program.

5 Tasks of the Research Center for Steel, Timber and Masonry (VA)

The VA performs the initial inspection, initial testing, regular monitoring, product testing and evaluation. These are documented in reports by the VA. The VA performs the certification. The certification includes the issuing, and if necessary the amendment, suspension or withdrawal of a certificate.

6 Tasks of the manufacturer

The manufacturer must ensure that the corrosion protection systems manufactured by him is complying with the requirements of EN1090-1:2009+ A1:2011 or DIN 55634 and this certification program through his ongoing factory production control (FPC). The manufacturer has to observe all applicable national regulations, laws, standards and rules of the country within whose borders the product is intended to be placed on the market.

The factory production control has to be documented, evaluated and presented to the VA. The documentation for the assessment of the factory production control must be kept for the period specified in FPC according to DIN EN 1090-1:2009+A1:2011 or DIN 55634, but for at least, 5 years.

The manufacturer has to inform the VA immediately and in written form of any changes concerning the specifications of the product.

7 Confidentiality and impartiality

The basic rules and procedures, according to which the VA operates, are impartial and non-discriminatory. Regardless of the size of the customer, membership of an association or group and regardless of the number of certifications already performed, these services are provided equally to all manufacturers. The requirements and the assessment as well as the certification decision are limited to those contents that explicitly relate to the scope of the certification.

The staff of the VA is committed to confidentiality towards third parties. Information on the content of the certification contract and the results obtained during its performance may only be provided with the agreement of the manufacturer, with the exception of the reporting and information obligations determined in this certification program and in the contract concluded with the manufacturer.
This does not apply to requests for information from courts or state authorities in the cases prescribed by legal regulations.

8 Regulation of costs

The remuneration for the initial inspection of the factory and the factory production control, regular monitoring, initial inspection and product testing, assessment and evaluation of the factory production control including any necessary special audits, the preparation of the necessary reports and for the issuing of the certificate as well as travel expenses are based on the cost rates of the VA. In all cases, invoicing is on a time and material bases. In all cases, the manufacturer is liable for the costs.

9 Glossary

In DIN EN 1090, DIN 55634 and relevant technical specifications for the performance of certifications, different terms are partly used for the same elements or the same terms are used for different elements. To ensure consensus between the various standards despite different definitions, the terms applied in this certification program are defined.

Proof of suitability
A document, in which the suitability of a corrosion protection system for a corrosivity category and duration of protection as well as for further levels and classes, if relevant, is verified and documented. The proof of suitability is prepared by the manufacturer or a person authorized by him.
In DIN EN 1090-4:2018, the proof of suitability in section E.2.3.2 is referred to as „type testing" and includes the „examination of suitability (initial type testing)" according to section E.2.2.

Initial type testing
According to this certification program and DIN 55634-2:2018-03, an extensive test of the corrosion protection system by the certification body is understood as initial type testing. Within the scope of the initial type testing, the proof of suitability is checked. The initial type testing is performed every 5 years or when the corrosion protection system or the application method changes.

Manufacturer
In this certification program, the manufacturer is understood as that organization that produces the corrosion protection system. It is assumed that the manufacturer is also the applicant. According to the definitions in DIN 55634-1:2018-03 and DIN 55634-2: 2018-03, the manufacturer is both the coil coater and the applicant.

Manufacturing plant
Plant where the application of the corrosion protection systems (hot-dip galvanizing and/or coil coating) takes place..

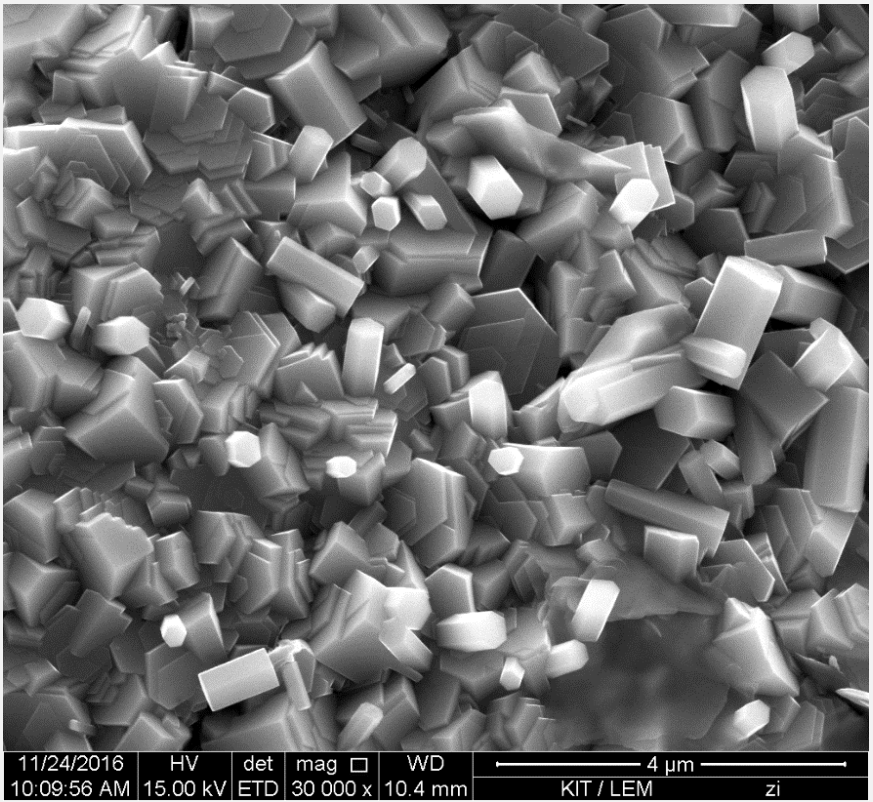
ITT (Initial Type Testing)
In DIN EN 1090-1:2009+A1:201, ITT is and English abbreviation for the term „Initial Type Testing".
For further details, see initial type testing.
According to DIN EN 1090-1:2009+A1:2011, initial testing (also known as ITT, Initial Type Testing) has to be performed by the manufacturer in order to determine the performance characteristics of a product and to provide proof that the manufacturer fulfils the requirements to produce the product in accordance with the standard. The meaning of the term "initial type testing" according to DIN EN 1090-1:2009+A1:2011 essentially correspond to the term „proof of suitability" in this certification program.
In DIN EN 1090-4:2018, the term „initial type testing" is used as a synonym for the „proof of suitability".

Product testing
Tests on corrosion protections systems by the VA.

VA
Abbreviation for KIT Steel and Lightweight Structures, Research Center for Steel, Timber and Masonry [KIT Stahl- und Leichtbau, **V**ersuchs**a**nstalt für Stahl, Holz und Steine].
The VA is a certification body as defined by DIN 55634-2:2018-03 and performs all activities in accordance with the relevant standards in connection with certification.

Factory Production Control (FPC)

An internal control system documented by written instructions for verifying conformity, which includes regular inspections and tests and the resulting measures. The essential task of the factory production control is to ensure that the corrosion protection systems placed on the market comply with the requirements and the characteristics stated.



Certification program ZP01

Corrosion Protection Systems for thin-walled cold-formed components

Postal adress:
KIT Stahl- und Leichtbau
Versuchsanstalt für Stahl, Holz und Steine
Karlsruher Institut für Technologie (KIT)
Otto-Ammann-Platz 1
76131 Karlsruhe
Germany
Tel. +49(0)721 / 608 – 42215
Fax +49(0)721 / 608 – 44078
E-Mail: vas-info@vaka.kit.edu
http://stahl.vaka.kit.edu

Delivery adress:
Karlsruher Institut für Technologie (KIT)
Campus Süd
(Einfahrt Adenauerring; gegenüber Hausnummer 2)
Otto-Ammann-Platz 7, Gebäude 10.70
76131 Karlsruhe

Registered office: Kaiserstr. 12, 76131 Karlsruhe, Germany
KIT –The research university within the Helmholtz-Association