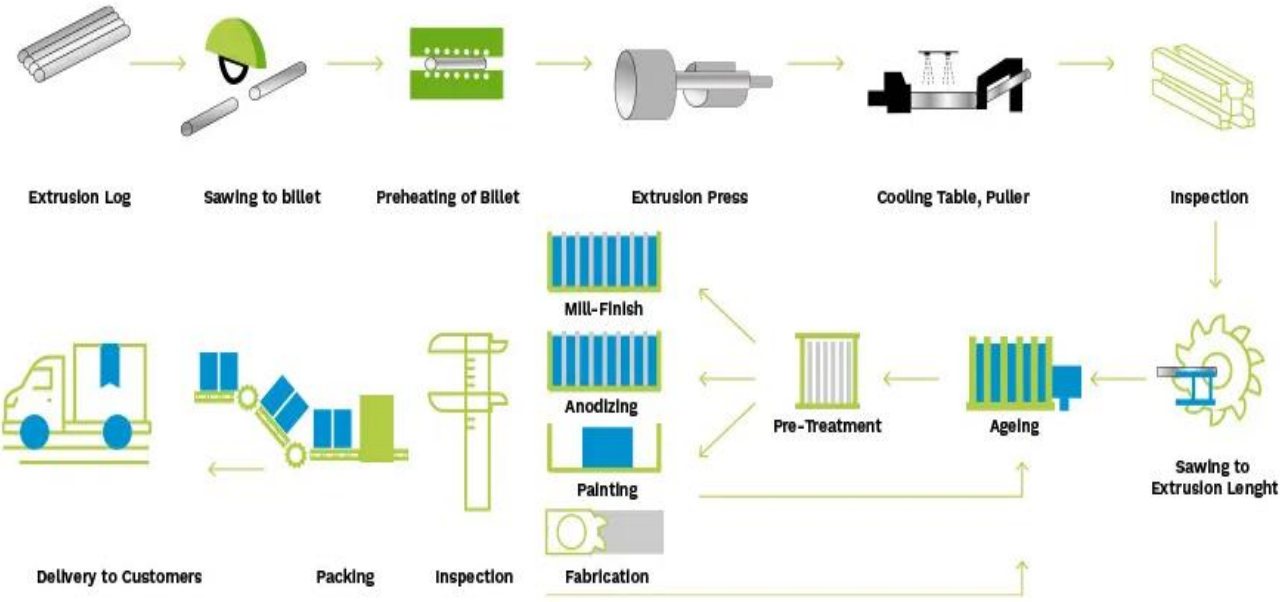
Ethiopian Conformity Assessment Enterprise (ECAE)



Product Certification Scheme for Aluminum Profile

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Addis Ababa - Ethiopia

Certification Scheme for Aluminum Profile

Contents

Certification Scheme for Aluminium Profile

1. Scope

This conformity evaluation document specifies the specific requirements for the evaluation of conformity of Aluminum Profile to its corresponding product standards (ES ISO 6362). This document gives technical rules for factory production control by the manufacturer, which includes testing, process control, management system and surveillances.

2. Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies

ES 13006-1:2016, Wrought aluminium and aluminium alloys Extruded rods/bars, tubes and profiles: Technical conditions for inspection and delivery

ES ISO 13006-2: 2016 Wrought aluminium and aluminium alloys Extruded rods/bars, tubes and profiles: Mechanical properties

ISO 6362-3:2022,Wrought aluminium and aluminium alloys Extruded rods/bars, tubes and profiles: Tolerances on form and dimensions for extruded rectangular bars

ISO 6362-4:2022, Wrought aluminium and aluminium alloys Extruded rods/bars, tubes and profiles: Tolerances on form and dimensions for profiles

ISO 6362-5:2022, Wrought aluminium and aluminium alloys Extruded rods/bars, tubes and profiles: Tolerances on form and dimensions for round, square and hexagonal bars

ES ISO 13006-7:2016, Wrought aluminium and aluminium alloys Extruded rods/bars, tubes and profiles: Chemical composition

ES ISO 9001:2015, Quality management system

ES ISO/IEC 17065:2012, Conformity assessment Requirements for bodies certifying products, processes and services

ES ISO/IEC 17025:2017, General requirements for the competence of testing and calibration laboratories

3. Terms, Definitions and Abbreviations

3.1 Abbreviations

CB: Certification Body

ES: Ethiopian Standard

IEC: International Electro technical Commission

ISO: International Organization for Standardization

3.2 Terms and Definition

For the purposes of this document, the terms and definitions given in the ES ISO 6362 requirement and the following shall apply.

3.1.

Declaration of Conformity

Document issued by the manufacturer under the rules of this document for the evaluation of conformity indicating that adequate confidence is provided that the product is in conformity with ES ISO 6362 .

3.2.

Standards Mark

Mark given for the Substantiation that a product meets the requirements of the relevant Ethiopian Standards

3.3.

Declared Aluminium Profile

It is an Aluminium Profile that is declared by the relevant legal body for conformity with relevant respective quality standards (ES ISO 6362 and requirements of this scheme).

4. Requirements

4.1. Requirements for the product

All the requirements of Aluminium Profile shall comply with the specifications listed under ES ISO 6362 part two and part seven and other its test method families listed out under section 2.

4.2. Requirements for the factory production control by the manufacturer

The manufacturer shall have a permanent internal control of Aluminium Profile production that

consists of internal quality control, sampling plan, and testing from input to output.

4.3. Management System

4.3.1. Documented information related to the production of quality Aluminium Profile

The manufacturer's documentation system and documents of procedures for production control shall be clearly described in detail. The documented information related to the quality production of Aluminium Profile shall contain at least:

a) Quality policy

b) The quality objectives;

c) Organizational structure;

d) Operational procedures

e) Responsibilities and powers of the management about product quality;

f) The means to monitor the achievement of the required product quality;

g) Effective operational production control

h) The manufacturing and quality control techniques, processes, and systematic actions that will be used and

i) The examinations and tests that will be carried out before, during, and after manufacture and the frequency in which the company will carry out.

4.3.2. Organizational Roles, Responsibilities and Authorities

The manufacturer shall ensure that the responsibility and authority for relevant roles are assigned, communicated, and understood within the organization to ensure that:

a) The processes are delivering their intended output

b) The organizational management system conforms to the requirements of this document

c) Reporting on the performance of the management system and opportunities for improvement in particular to top management

4.3.3. Internal Audit

The organization shall conduct an internal audit at planned intervals to provide information on whether the management system is effectively implemented and maintained. In order to ensure the continuing suitability and effectiveness of the requirements of this certification scheme, the manufacturer shall perform internal audit at least once a year.

4.3.4. Management Review

The manufacturer shall review the effectiveness of the management system at planned intervals to ensure its continuing suitability, adequacy, effectiveness, and alignment with the strategic direction of the organization and to meet the requirements of this document for the evaluation of conformity. A management review shall take into account the records of the internal audits and shall be performed at least once a year.

4.3.5. Personnel

The manufacturer shall ensure that all the personnel involved in operations that can affect the management system, internal quality control, and product quality have appropriate relevant educational qualifications, experience, and training. Moreover, relevant records for the competency of the experts shall be retained.

4.4. Documentation System

4.4.1. Document Control

The manufacturer shall have a system for the control of all documents (documented information) and data related to production control and this document for the evaluation of conformity. In addition, the manufacturer shall ensure that all appropriate documents are available at essential locations. All outdated documents shall be withdrawn and changes or modifications to any document shall be made effectively and timely. A master list that comprises the current version of all necessary documents shall be prepared to prevent misuse of the documents.

4.4.2. Quality Records

The manufacturer shall retain test results, appropriate records, and quality records for the period required to comply with the disposition requirement of the organization.

4.4.3. Documents of Quality Control

The manufacturer shall establish documented procedures and appropriate test methods to ensure that the produced Aluminium Profile meet the requirements of product specifications (ES ISO 6362 series) and establish mechanisms to ensure effective and sustainable process control measures.

4.5. Internal Quality Control

4.5.1. Process Control

The manufacturer shall have:

a) Parameters for production process control;

b) Validated procedures for testing other than test methods specified in ES ISO 6362 (if any);

c) Verification methods;

d) Inspection schedule;

e) The methods to ensure that the Aluminium Profile conform to ES ISO 6362.

f) Mechanism to ensure that non-conformance is adequately managed,

g) Records of release criteria.

4.6. Measuring and Testing

4.6.1. Measuring and Testing Equipment

The equipment used for measuring and testing shall be regularly checked and calibrated by the procedures and frequencies laid down in the operation manual/calibration plan. These procedures may include a comparison of test results with other laboratories. (External quality assurance).

4.6.2. Labeling, Storage and Distribution

Products complying with the Regulations of this Scheme shall be clearly marked with the following information:

(a) Brand name of the product,

(b) Manufacturer's mark and place of origin,

(c) Date or code of production, and conditions of storage,

(d) Standard and relevant requirements,

(e) Type of product,

(f) Model and series numbers,

(g) Details of size,

(h) Address of manufacturer,

(i) Packing and yield,

(j) Any other manufacturer's specification or recommendations on the use of this aluminium profile

The information shall be marked on the packaging and/or the product's technical data sheet.

4.7. Sampling and Testing

4.7.1. The manufacturer shall have a mechanism for sampling and testing each certified product.

4.7.2. This mechanism shall be used to demonstrate conformity to the requirements in the relevant product specification standard.

4.7.3. The parameters to be tested, the testing methods, and the minimum frequency of testing during routine and initial period testing shall be indicated in the sampling plan.

4.7.4. The conformity criteria shall be by the basic requirements given in the relevant product certification standard.

4.7.5. All test result data shall be documented properly.

4.8. Evaluation of Test Results

The manufacturer shall check that each test results meet the requirements of relevant standards ES ISO 6362.

4.9. Non-conformities, Correction, and Corrective actions

4.9.1. The manufacturer shall have a mechanism for the management of non-conformances. The manufacturer shall:-

a) Determine the non-conformities;

b) Take appropriate action to the non-conformance

c) Determine the cause (s) of such non-conformity;

d) Take corrective action

e) Verify if the corrective actions are effective. All such actions and findings shall be recorded.

4.10. Audit

4.10.1 Initial Audits

The initial audit shall be carried out as specified in CB's criteria document /product certification procedure/. In the case of a new factory (a newly constructed facility or a facility previously not audited), CB's audit team shall make a relevant audit of the factory and the factory's production control by its product certification procedure.

4.10.2. Application Criteria for Acceptance

The application is made as specified in the relevant CB's application form.

4.10.3. Application Reviewing time Frame

Application review time shall be as defined in CB's criteria document /product certification procedure.

4.10.4. Sampling

a) Sampling shall be carried out in accordance with the method specified in CB's sampling procedure. Samples shall be taken from the production line, warehouse, and the market. The manufacturer shall permit the drawl and collection of samples from their facility for independent evaluation of the product quality by the CB. No fee shall be levied for the same.

b) 1m*3 pieces of sample per product type shall be subjected to testing.

c) Test sample(s) taken for independent test (CB's laboratory) shall be sealed and signed in the presence of both parties and shall be submitted to the CB's Testing Laboratory by the CB's representative.

d) The auditor/audit team checks the availability of testing facilities and or established outsourcing systems in the manufacturing Quality Control for adequacy.

e) The auditor/audit team verifies the competence of testing personnel and the testing facility.

4.10.5. Testing by CB

a) The tests shall be carried out by the test method specified in ES ISO 6362 or any other validated test method.

b) The results of both in-plant and in CB's Testing Laboratory shall comply with the requirements of relevant standards ES ISO 6362.

c) If the result of the test conducted by the CB's Testing Laboratory shows nonconformance concerning the specified requirements, the provision for rejection as per CB's procedures. Retest shall be carried out on the reference sample kept by the CB or new samples collected by the CB's representative, on which full testing shall be carried out, if necessary.

d) If the retests comply, the initial product certification audit is considered conforming to product specification. If not, the manufacturer will be advised to take corrective action.

e) CB shall maintain records of all certification activities: application registration, documents provided by the applicant, and on-site evaluation report, including factory test results and test reports of samples.

Note: When CB chooses to use test, data produced by others (including supplier laboratory under certain conditions), CB shall ensure that the requirements for the suitability and competence of the party conducting the testing as specified in ISO/IEC 17025.

4.11. Sample Testing Frequency

The manufacturer shall have a sampling plan which shall include frequency of sampling and sampling points and conduct testing as per the plan.

4.12. Reports

Following each evaluation of audit test results, a confidential report shall be prepared and sent a copy to the manufacturer without delay.

4.13. Declaration of Conformity

The declaration of conformity of the product can be made by the client following the certification of the factory production control by CB by the directive for ES Mark licensing.

4.14. Standard Mark

The Standard mark shall be used only for the declared products.

4.14. Action to be taken by the manufacturer in the event of nonconformity

4.14.1. The control of non-conforming products and the corrective action to be taken by the client shall be dealt with in clause 4.9.1 of this document.

4.14.2. These are the full responsibility of the client

4.14.3. The client shall stop production and declare and report to CB if the product no longer complies with the requirements for the declaration of conformity statements that the product conforms to the requirement of ES ISO 6362 and the evaluation of conformity described in this document.

4.15. Surveillance

CB shall conduct factory and market surveillance audits by its surveillance audit procedure every six months (one time per year) and renew the certificate every year.

4.15.1 Conclusions from Surveillance Assessment

On completion of each Surveillance Assessment, the Assessment Team shall report findings, including but not limited to Area for Improvements, Minor and Major Non-conformities, to the Clients for acknowledgement and follow up action(s). The surveillance assessment team will indicate with a written recommendation for continuing the Certification or otherwise.

4.15.2 Classification of non-conformities and recommendations

4.15.2.1 Major non-conformities

A Major non-conformity exists when the auditor observes regulatory violation requirements of ES ISO 6362 failure which requires that the manufacturer:

a) Immediately interrupts production.

b) Holds products in quarantine.

c) Discontinues distribution to customers.

d) Recall the product.

4.15.2.2 Minor non-conformities

A minor non-conformity exists when requirements of these evaluation criteria document requirements rather than relevant standards requirements have been addressed but there is insufficient evidence to demonstrate that it has been properly controlled or implemented.

4.15.2.3. Opportunity for improvements

In addition to non-conformities, the auditors may consider the observations as opportunities for improvement.

The basic requirement to identify and record improvement opportunities is that the requirements of ES ISO 6362 and this conformity evaluation document have been fulfilled but there are still areas for potential improvement of system effectiveness and efficiency.

Minor non-conformity and opportunity for Improvement will be checked during the following regular audit. If an opportunity for improvement is not resolved and closed by then, the opportunities for improvement will be considered nonconforming.

4.16. Certification Decision and Certificate

4.16.1. The information provided by the auditor/audit team to the CB for the product certification decision shall include as a minimum:

a) The audit report,

b) Comments on the non-conformities and, where applicable, the corrective actions taken by the client,

c) Recommendation from the auditor on whether or not to grant the certification, together with any conditions or observations.

4.16.2. If there is sufficient evidence to demonstrate compliance with the conformity evaluation criteria of the document and other related requirements (such as signing of product

certification agreement and service fee settlement), a certificate shall be granted.

4.16.3 Certificate

The decision to issue a certificate remains the CB's responsibility.

4.16.3.1 A certificate is valid for a year.

4.16.3.2 The Certification Body shall issue a Conformity Certificate of to the successful Applicant with the following content:

(a) Certificate number

(b) Name and address of the Certification Body

(c) Name and address of the Company

(d) Standard classification and designation of Aluminium Profile types in accordance with this Scheme and the reference year of ES ISO 6362.

(e) Certification Scope (Name or brand and size of the certified Aluminium Profile)

4.16.4 Where an application for participation in this Scheme is rejected or Certification is refused, the Applicant shall have the right of representation to an appeal committee in accordance with the Certification Body regulations.

4.17. Re-certification audits

CB shall conduct a re-certification audit per every year. A re-certification audit takes place before the end of a certification period. The audit shall be planned in due time, to avoid the expiration of the certificate.

Note: 1 A failure to perform the re-certification audit before the expiration of the certificate results in the interruption of the certification cycle. In this case, the wording "certified since" cannot be included on the certificate.

Note: 2 If a re-certification is conducted after the expiry of a certificate, the initial audit shall be carried out.

4.18. Suspension, change of scope and withdrawal of certification

4.18.1 If the client fails to comply with the client's obligations under this Scheme, the Certification Body will suspend the Certification of the client. If the failing of complying with the client's obligation under this Scheme continues for more than three months, the Certification Body may decide to withdrawn the Certification of the Client and re-application for a new Certification shall be required.

4.18.2 Upon a suspension of the Certification of a client, the Certification Body shall serve a written notice to the Client for such suspension with detail reason of the suspension.

4.18.3 Upon the decision to withdraw the Certification, the Client shall serve a written notice to the Certification Body at least one calendar month before the production of the certified Aluminium Profile to the Purchasers is ceased.

4.18.4 If the Certification for a Client is suspended or withdrawn, the Client shall immediately cease to use the Certification Mark and shall within two weeks' time inform the Purchaser(s) for such suspension or withdrawal of the Certification. All kinds of advertisement regarding the Certification shall be ceased and all certification documents shall be returned to the Certification Body by the clients. Other actions required if the certification is suspended, withdrawn or terminated shall be subject to the rules of the Certification Body and shall be stated in the contract with the client.

4.19. Information on Certified Aluminium Profile Manufacturers

4.19.1 Upon the request of any Purchaser, end users or any stakeholder of the certified Aluminium Profile, the Certification Body is obliged to provide verbal or written confirmation, whichever is requested, of the status of any certified Aluminium Profile Manufacturer under his registry.

4.19.2 Reasons for any suspension or withdrawal of Certification shall be stated in the Register as mentioned in Clause 4.18.2.

4.20. Changes to Requirements

4.20.1 The Certification Body

4.20.1.1 In the event of a change in the Requirements of this Scheme or the regulation of the CB, a grace period of six months, or any other length of the grace period to be announced by the CB, shall be given to all clients for clarification of the new requirements and preparation works for conforming to the changed requirements.

4.20.1.2 In the event of a change in this Scheme, the grace period given to the Clients shall be subject to the announcement of the relevant committee(s) of the ECAE/CD. The Certification Bodies and Clients shall make all necessary amendments in their auditing and operation systems and product quality to comply with the new requirements in the Scheme accordingly within the grace period given.

4.20.2. The Client

4.20.2.1 The Clients shall keep the CB informed in writing of changes in his circumstances which may affect Certification. Such changes include:

(a) Changes in ownership or name of the company for Certification.

(b) Change of processes which may affect the certification scope.

(c) Change of the location of the Plant and/or Quality System Management Office.

(d) Closure of manufacturing Plant.

4.21. Appeals against Decisions

4.21.1 The Applicant or Client shall have the right to appeal against any decisions of the Assessment Team or the Certification Body. An appeal committee shall be set up under the Certification Body. Details of the appeal procedure shall be provided in the Certification Body regulations and make known to all Applicant and clients.

4.22. Complaints

4.22.1 Certified Aluminium Profile Manufacturers shall keep records of all written complaints received from any concerned parties and corresponding responses. These records shall be made available to the Assessment Team at the time of any Assessment. The Assessment Team shall investigate in detail on such complaints to see if any Area for Improvement or non-conformity has to be raised.

4.22.2 The Certification Body shall keep a record of all written complaints, in relation to a Certified Aluminium Profile Manufacturer received from any concerned parties. Such complaints shall be investigated at the discretion of Certification Body and reported to the ECAE Board or equivalent.

4.22.3 The Certification Body shall respond to complainants with a report which is confined to a statement upon the Certification status of the Certified Aluminium Profile Manufacturer.

4.23. Confidentiality

4.23.1 All Applicants and Clients shall disclose to the Assessment Team for the purposes of Assessments all information or records obtained from or pertaining to Purchasers and connected with the Scheme.

4.23.2 The Assessment Team and any other staff in the Certification Body shall not disclose information or records obtained from the Applicants and Clients unless otherwise permitted by the Applicant or Client concerned.

4.24. Publication of Directory of Certified Products

4.24.1 The Certification Body shall be responsible to publish and maintain a list of certified

products under its certification to this Scheme with the updated certification status and all the contents in the Certificate of Conformity for each certified product.

Annex A

Table 1: Process inspection and Test plan

Process	Activities performed to monitor each process steps	Operating procedure/ work instructions used t	Inspection and sampling check points identified	Level of acceptance (in terms of product and process specification)	Inspection documents used to verify the inspection activities	Actions taken on nonconforming products	Inspection schedule and responsibility
Receiving raw materials							
Raw materials storage							
Melting process							
Casting							
Cutting, and billet heating							
Pressing process							
Aging process							
Washing process							
Powder coating							
Polishing ,& matt finish							
Finished products							
Packing and labeling							
Final product storage							

Table 2: Quality control on raw materials, in-process and finished products test

Products or materials	Parameters	Sampling/ inspection points	Test methods	Level of control		Acceptance criteria	Responsibility	Remarks
				Sample size	Frequency			
Raw materials								
Intermediate products								
Finished products								

Annex B

About Ethiopian Conformity Assessment Enterprise (ECAE)

The Ethiopian Conformity Assessment Enterprise (ECAE) is a public enterprise under the Ministry of Trade and Regional Integration in Ethiopia. Its primary mission is to promote quality and safety in Ethiopian industries by implementing national and international standards.

The ECAE provides conformity assessment services to industries, manufacturers, and businesses across various sectors, including agriculture, food, textiles, electronics, construction Materials and management systems. These services involve testing, inspection, and certification, ensuring that products and systems meet the required national and international standards and are safe for use by consumers.

The Enterprise operates with a team of highly skilled technical experts, analysts, inspectors and laboratories, which are equipped with state-of-the-art technologies to provide reliable and accurate testing and assessment services. The ECAE aims to help industries improve the quality of their products, enhance their competitiveness in the global market, and protect the health and safety of consumers.