

Quality Assurance Standards

March 18, 2024

NICHICON CORPORATION
Quality Assurance & Production Innovation Headquarters

NICHICON CORPORATION and NICHICON CORPORATION Group companies (hereinafter, “NICHICON”) and trading partners that supply NICHICON with materials, parts, consignment processed goods and products (hereinafter, “materials”), to ensure proper quality and reliability, NICHICON establishes the following quality assurance standards for items related to quality assurance that should be mutually implemented by NICHICON and its trading partners.

1. Objective

These quality assurance standards (hereinafter, “the standards”) concern the materials trading partners supply to NICHICON and define basic quality assurance items that should be implemented by NICHICON and its trading partners as well as establish an economical and effective quality assurance system with the objective of contributing to the development of NICHICON and its trading partners.

NICHICON and its trading partners shall cooperate with each other to achieve the above objective.

2. Scope of application

This applies to business partners who deliver raw materials, parts, materials, and packaging materials used directly or indirectly in the products we produce and sell.

3. Clarification and agreement on requisite quality

- (1) The quality requirements NICHICON requests from its trading partners are presented as content submission of purchase specifications or drawings or delivery specifications (collectively referred to as specification documents) submitted by trading partners to NICHICON.
- (2) If there are quality requirements from NICHICON customers, they shall be stated in the specification documents or presented in writing, trading partners shall comply with these requirements.
- (3) Trading partners shall fully consult with NICHICON and engage in mutual cooperation aimed at agreement in order to satisfy quality requirements requested by NICHICON.
- (4) In principle, confirmation of agreements between NICHICON and its trading partners shall be carried out based on agreed specification documents.
- (5) Trading partners are responsible for maintaining and managing specifications provided by NICHICON, are the latest version, and always delivering materials that meet quality requirements stipulated in the latest version of the specifications.

4. Quality assurance obligations

Trading partners are obliged to warrant quality as listed in each of the following items.

- (1) Materials delivered by trading partners to NICHICON shall satisfy the quality required by NICHICON and be of reliable quality.
- (2) The use of toxic and dangerous materials in the materials delivered to NICHICON by trading partners and their manufacturing processes shall be within legal limitations.
- (3) The quality of materials, parts and consignment processed products procured by trading

partners from trading partner suppliers shall be the same as that of NICHICON materials.

5. Compliance with laws and regulations

- (1) Trading partners must comply with laws, ordinances and the notifications and guidance of relevant government agencies for safety, disaster prevention and environmental management in all activities related to the delivery of materials.
- (2) Regarding materials delivered by trading partners, in the event of hazardous pollution or trouble due to reasons that are stated as responsibilities of trading partners, NICHICON shall be notified immediately and trading partners shall take responsibility by engaging in appropriate countermeasures and prevent recurrence.

6. Supervisors

Trading partners shall specify a supervisor who has the following authorities, to ensure the trading partner fulfills and maintains requirements of standards for quality management (such as ISO9001, IATF16949 standards).

- (1) Establishes, executes and maintains the processes required for quality management systems.
- (2) Reports to management the implementation status of quality management systems and the need for improvements as the basis for reviewing and improving quality management systems.
- (3) Raises awareness of customer requirements throughout trading partner's organization.

7. Quality assurance system

- (1) Materials delivered to NICHICON, trading partners shall establish a quality assurance system to satisfy NICHICON quality requirements, making an effort to continuously maintain and improve quality.
- (2) At NICHICON's request, trading partners shall submit details regarding quality assurance systems and management standards as well as management rules, data and other information as indicated in Paragraph 1 of attachment.
- (3) To satisfy quality requirements requested by NICHICON, trading partners shall implement quality control using the following methods ①—⑮.
 - ① Clarification of quality assurance system and organization
 - ② Management of specification documents and agreement with NICHICON
 - ③ Process control
 - ④ Measuring instrument management
 - ⑤ Shipment inspection and examination
 - ⑥ Identification of raw materials, works in process and finished products, traceability, storage and transportation management
 - ⑦ Equipment and jigs and tools management
 - ⑧ Change management
 - ⑨ Management of purchased products and consignment processed products
 - ⑩ Identification and treatment of quality nonconformity

- ⑪ Accumulation of quality data
 - ⑫ Utilization of statistical methods
 - ⑬ Education and training
 - ⑭ Other quality control items specified by NICHICON
 - ⑮ Compliance with environmental regulations and NICHICON Green Procurement Guidelines requirements
- (4) Trading partners must obtain quality/environment management system certification as indicated in Paragraph 2 of attachment.

8. Quality control planning

Trading partners shall formulate quality control plans as follows.

- (1) In-house standardization and quality control planning
 - ① Plans for raising awareness of standardization and quality control
 - ② Plans for production stabilization and cost reductions of products with equal quality
 - ③ Plans for undergoing auditing and conducting quality control inspections aimed at improving management levels
 - ④ Plans for administrative procedures and stylistic standardization
 - ⑤ Plans related to quality assurance (reliability)
- (2) Planning related to education
 - ① Education plans related to standardization, quality control and statistical methods
 - ② Education plans in accordance with each level
 - ③ Survey plans related to educational outcomes

9. Specific management items for quality control

To achieve an effective system for managing and improving process and product quality, the following items shall be combined and managed as necessary.

- (1) Planning, formulation (Design FMEA, Process FMEA, DR, DRBFM)
- (2) Maintain and improve mass production and quality control levels (QC process charts, initial flow management)
- (3) Monitoring, especially establishment of statistical processing system and quality assurance system of prevent errors outflow.

Note: Establish management standard values with important characteristics of complete sorting or process capability index Cpk (Cp). Management standard values shall be managed at or above the standard value in Paragraph 3 of attachment.

- (4) Safety standards and regulations
- (5) Quality-related cost evaluations
- (6) Specification change management and reliable communications
- (7) Mutual consultation with relevant departments
- (8) Customer focus and continuous improvements

10. Process management

Based on the principle of quality first, trading partners shall focus efforts on source control

that creates quality in the manufacturing process, create a QC process chart clarifying the control points and control methods of each process, and engage in management based on the QC process chart.

With regard to the following two items, all relevant departments, such as quality control, engineering, manufacturing, facilities and other departments shall meet and engage in discussions to determine and stipulate management methods.

- Processes that seriously affect product quality and result in the event of a defect, causes ignition, smoke or affects human life (important processes)
- Quality and characteristics that can be sensed and detected only in that process (important characteristics)

11. Yield management

- (1) Trading partners shall collect yield and defect rates to determine product quality and process conditions. In principle, all products in mass production (shipped to market) are subject to yield management.
- (2) Trading partners shall set and manage abnormal yields for each process and final yield. Lots that exceed abnormal yields will be managed for nonconformity.

12. Recurring defects

In the event of recurring defects in materials (said to have the same or similar causes and symptoms), NICHICON and its trading partners shall discuss and determine appropriate corrective measures and trading partner shall implementation those corrective measures accordingly.

13. Shipping inspections

- (1) To deliver materials that satisfy NICHICON quality requirements (purchase specifications and parts drawings), trading partners must conduct necessary inspections and only deliver materials that have passed inspection.
- (2) When requested by NICHICON, trading partners shall submit documentation (shipping inspection reports) indicating those materials have passed inspections.

14. Delivery and transfer

- (1) In response to NICHICON requests, trading partners must attach shipping inspection reports for each delivered materials lot.
- (2) NICHICON or a designated third party (public institution) can conduct on-site inspections at trading partner premises.
- (3) Packaging must be sturdy and durable in accordance with requested shipping methods, adequately protect materials, and be vibration, impact and environmentally resistant.

15. Acceptance inspection

- (1) NICHICON shall inspect materials delivered by trading partners according to the specification or the standards set by NICHICON.

- (2) NICHICON shall disclose acceptance inspection standards as necessary when requested by trading partners.
- (3) When NICHICON deems trading partner quality assurance systems to be sufficient, trading partner shipping inspection data can be treated as NICHICON acceptance inspection data.
- (4) NICHICON can waive inspections based on the results of careful investigations of trading partner quality control systems, shipping inspection details and delivery track records.
- (5) Trading partners shall be responsible for the quality of delivered materials even after passing acceptance inspections in each of the above items.

16. Specification changes

- (1) If there are any changes, additions or deletions to the contents of specification documents provided by NICHICON, we will deliver the new specification documents to trading partners. When a trading partner receives a new specification document, they must promptly distribute them within their company and to related parties, all old specification documents must be collected and returned to NICHICON. If the specification documents are delivered as electronic data, the trading partner shall ensure that they are deleted under their own responsibility.
- (2) In the event trading partners have any doubts about specification documents provided by NICHICON, or if trading partners wish to make changes, NICHICON shall be promptly notified.
- (3) If any of the following changes ①-⑥ affecting performance and quality of materials occur or likely to occur, trading partners must notify NICHICON at least six months before the start of delivery. In addition, delivery of changed products will not allow until NICHICON approves all changes. If a change is unavoidably necessary within six months, our company and our trading partner will discuss how to respond.
 - ① Design changes (including changes in raw materials and suppliers)
 - ② Changes in manufacturing processes or conditions, inspection methods and control methods
 - ③ Changes in manufacturing equipment, molds and inspection equipment
 - ④ Changes in packing, storage and transportation methods
 - ⑤ Changes in manufacturing location
 - ⑥ Other changes that may affect quality or performance

17. End of product production and discontinuation

- (1) When the production of materials is to be terminated or discontinued, trading partners shall notify NICHICON at least one year in advance and obtain approval. In the event of unavoidable termination or discontinuation in less than one year, NICHICON and its trading partners shall engage in mutual discussions to decide when to implement production termination or discontinuation.
- (2) Trading partners shall propose alternative products and conduct bulk production of current products based on NICHICON requests before the production of materials are terminated or discontinued.

18. Methods for dealing with defects

- (1) If a quality defects occur in materials delivered to NICHICON, trading partners shall promptly deal based on NICHICON instructions and submit the results of analysis and recurrence prevention measures in writing document.
- (2) Analysis results and recurrence prevention measures submitted by trading partners shall be in the format shown in Paragraph 4 of the attachment.

19. Handling of outsourced processors and purchasers

- (1) Trading partners shall be responsible for materials, parts and outsourced processed products from trading partner suppliers and the outsourced processing company. Purchaser shall comply with the quality requirements described in the standards.
- (2) If necessary, NICHICON may request the submission of documents related to the quality assurance system specified in Section 6 of this standards, as well as a list of trading partner's outsourced processing companies and purchasers.
- (3) NICHICON can conduct quality audits of trading partner outsourced processing companies and purchasers as necessary.

20. Quality audits

- (1) Trading partners shall make every effort to maintain and improve quality management systems, carry out self-audits on a regular basis and maintain and improve management systems.
- (2) NICHICON can conduct on site quality audits of quality assurance systems, manufacturing processes and other functions at the trading partner premises. If NICHICON requests a trading partner submit materials necessary for auditing, the trading partner shall comply with this request.
- (3) In the event of NICHICON customer defects caused by abnormalities in materials delivered by trading partners or the possibility of said defects, NICHICON can accompany customers when conducting trading partner quality audits.
- (4) If NICHICON proposes improvements during an audit, trading partners shall take the necessary measures for fulfilling instructed improvement. If necessary, NICHICON can request that trading partners report the implementation status after improvement and subsequent results.

21. Retention of records

- (1) Trading partners shall record various control items related to the quality of materials described in each section of this standards, and in principle, retain them for 21 years or more.
- (2) When requested by NICHICON, trading partners shall submit various records, analytical data, statistical data and other information.

22. Maintaining confidentiality

NICHICON and its trading partners shall not leak confidential matters such as design, specifications, processing methods, production volumes, control methods or other information that we have acquired through business transactions, including details discussed in this standard, to a third party without obtaining mutual consent.

23. Matters for discussion

If any doubts arise regarding the content of this standards, NICHICON and its trading partners shall seek resolution after good faith mutual consultation.

Attachment: General Grade Usage

1. Management rules, management data
QC process charts, acceptance inspection standards, shipping inspection standards,
process control data, test data, reliability data

2. Quality management system
ISO9001

3. Management standard value
Cpk (Cp) 1.33 or higher

4. Analysis results and recurrence prevention measures document format
Depends on format used by trading partners.
However, a five principles sheet or 8D report is preferred, and these formats shall be
used if NICHICON specifies them in certain situations.

Attachment: Automotive Application Usage

1. Management rules, management data
APQP/PPAP (Level 3), QC process charts, acceptance inspection standards, shipping inspection standards, process control data, test data, reliability data

2. Quality / Environment management system
Quality: IATF16949
Environment: ISO14001
Trading partners have not acquired these management systems, please present a plan to acquire them.

3. Management standard value
(Short term) Ppk/Cmk 2.00 or higher
(Long term) Cpk 1.67 or higher

4. Inspection / Test
Layout inspection: Inspect all dimensions listed in the acknowledged drawings and specifications.
Functional test: Test all characteristics listed in the acknowledged drawings and specifications.
Frequency: At least once/year

5. Analysis results and recurrence prevention measures document format
8D report or five principles sheet
The response deadline at each stage is defined in the table below and is calculated from the date when the trading partner receives notification from NICHICON that a problem has occurred. NICHICON will contact trading partners when our customers required take “urgent” measures regarding the possibility of production line suspension or reliability risks.

Response schedule table

8D items	Standard	Urgent
D2: Explain problem D3: Implement containment measures	Report within 24 hours	Report within 24 hours
D4: Identify cause	Report within 3 days	Report within 24 hours
D5: Determine corrective action D6: Implement corrective action	Report within 14 days	Report within 7 days
D7: Determine recurrence countermeasures D8: Implement recurrence countermeasures	Report each by the agreed planning date	Report each by the agreed planning date

Revision History

Name	Quality Assurance Standards		Document No.	NHS-Q150-1	p. 1
No.	Revision date	Revision summary			
—	2012.4.25	Newly established			
1	2015.2.26	<p>To respond to the demands of automotive-related customers, it has been divided into general grade and automotive grade, separate sheets have been added, and the following content has been revised.</p> <ul style="list-style-type: none"> • Presentation of quality control data (PPAP, test data, reliability data, statistical methods) • Efforts towards obtaining quality management system certification (ISO9001 or ISO/TS16949) • Cpk management of important characteristics (1.33 or higher or 1.67 or higher) • End of product production or discontinuation • When an abnormality occurs, analysis results and recurrence prevention measures document • Process management • Customer audit 			
2	2015.5.27	Add document number and revision history			
3	2018.4.4	<p>Revision of separate sheet for automotive grade (no revision for general grade)</p> <p>Add the following requirements.</p> <ul style="list-style-type: none"> • ISO/TS16949 (IATF16949) compliant • ISO14001 compliant • APQP/PPAP (Level 2) • 8D report (cycle time target: within 14 days) 			
4	2018.12.27	<p>Revision of separate sheet for automotive grade (no revision for general grade)</p> <p>Change from APQP/PPAP (Level 2) to APQP/PPAP (Level 3)</p> <p>Added response deadlines for each stage of the 8D report.</p> <p>Changed from ISO/TS16949 (IATF16949) to IATF16949</p>			
5	2020.10.27	<p>With the new establishment of the Quality Assurance Standards Management Regulations (NHS-Q150), this standard has been designated as Annex NHS-Q150-1 to the same regulations.</p> <p>Changed document number from NHQAS to NHS-Q150-1</p> <p>Integration of general grade (Revision 2) and automotive grade (Revision 4)</p> <p>Full review of the content (mainly changes to the order of clauses, correction of wording, and addition of clauses regarding record keeping)</p>			

Name	Quality Assurance Standards	Document No.	NHS-Q150-1	p.2
No.	Revision date	Revision summary		
6	2023.10.25	<p>Due to organizational changes, the "Quality Assurance Headquarters" was changed to the "Quality & Production Innovation Headquarters."</p> <p>2. Added scope of application</p> <p>6. Management manager. 16. Specification changes, 20. Review of quality audit contents.</p>		
7	2024.3.22	<p>7 (4) Deleted the words after "In principle," acquisition.</p> <p>【Attachment】</p> <p>Added the following content.</p> <p>Automotive grade management system,</p> <p>If you have not yet acquired a management system, develop a plan to acquire it.</p> <p>Added management standards and test/inspection requirements.</p>		