

SUPPLIER QUALITY

All prior editions are obsolete and should not be used. It is the user's responsibility to ensure that only the latest revision of this standard is used. (Go to <https://www.spartronics.com/terms-and-conditions> for the current standard.)

Preface

At Spartronics we strive to continually improve our process performance by meeting quality objectives and maintaining compliance with our work environment with applicable regulatory requirements. It is imperative that our business partners operate under the “zero defects and 100% on-time delivery” philosophy, striving for maintaining a quality system that ensures continual improvement in the quality of product or service and timely deliveries to support our customers’ needs. Emphasis should be on defect prevention and the reduction of variation and waste in the supply chain. The aim of all activities is to continually comply with our customers’ expectations.

This document is based on the Quality Management System requirements and standards of Spartronics and is considered an integral and legally binding part of any Spartronics purchase order referencing this document. Through implementation and adherence to the quality standards herein, Spartronics looks forward to a long and mutually beneficial relationship with our suppliers.

Introduction

This document outlines the expectations and requirements with which our suppliers and their sub-tier contractors must comply when providing material and services covered by Spartronics’ purchase orders. Suppliers are fully responsible for the quality and delivery of their products/services and their sub-tier suppliers. Depending on the specific order, not all sections or sub-sections apply.

All Purchase Orders that include a reference to this document constitute acceptance and commitment on behalf of the recipient to comply with this document’s content as detailed below.

1. **Supplier Surveillance & Performance Management.** Quality Internal Supplier Management Reviews are utilized by Supply Chain Management and Quality to monitor strategic supplier activity, review supplier performance, and evaluate high risk and/or poor performing suppliers for potential action/supplier controls.

Spartronics requires all suppliers to provide the delivery date, product and/or services, quantity and pricing stipulated in the purchase order/contract.

It is also Spartronics’ expectation that the supplier develops processes and procedures to prevent the occurrence of defects and strives to continually improve upon those processes.

2. **Cooperative Management Attitude.** Spartronics expects supplier’s top management to share its commitment to meeting customers’ quality and delivery expectations through continuous improvements. It is also expected that they will fully support the relationship between our companies and demonstrate flexibility in assisting Spartronics in meeting all our customers’ requirements.

The Supplier shall ensure its personnel are aware of:

- Their contribution to product or service conformity.
- Their contribution to product safety is defined herein.
- The importance of ethical behavior.

The Supplier shall ensure that its personnel are competent and, where required, qualified to perform assigned tasks associated with this purchase order.

Suppliers should have a business continuity plan in place for our components and/or products. Any condition causing a line shutdown warrants the supplier’s immediate action to facilitate Spartronics’ production activities and may result in associated costs charged back to the supplier.

3. **Statistical Process Control (SPC).** Spartronics encourages suppliers to continually improve the quality of products and services delivered to us. The supplier shall maintain documented evidence of an ongoing policy and practice of achieving continual improvement. This documentation must be available for review upon request by Spartronics.

A key aspect of continual improvement is the proper use of statistical methodologies. Statistical data shall be provided when required for purchases as identified by the purchase order, drawing, etc. Spartronics.

4. **Confidentiality.** Spartronics shall only disclose proprietary information to suppliers on a need-to-know basis in accordance with an established confidential relationship via a signed, active Non-Disclosure Agreement. This disclosed information may be in a variety of formats, including but not limited to, bills of materials, solid models, 2D and electronic drawings, software, etc. Suppliers shall, in turn, take the utmost care in protecting all proprietary information. This includes notification to Spartronics prior to the transfer of proprietary information to a third party; wherein Spartronics will make the decision to initiate a Non-Disclosure Agreement with them as well. All originals and copies of proprietary data must be properly destroyed or must be returned to the originating source when they are no longer needed. Proprietary documents are not to be disclosed to competitors of Spartronics.

Certain information may have additional regulations and require additional controls. This information will be detailed in applicable procurement documentation. Suppliers may be required to demonstrate registration to applicable government bodies, as applicable (ITAR, FDA, etc.)

5. **Supplier Qualification & Performance.** Spartronics' supply base will consist of organizations that are supportive of our business needs. Spartronics uses controlled methods through which suppliers are evaluated, selected, developed, and monitored. Criteria for placement and for remaining on the Spartronics Approved Suppliers List are based on the supplier's ability to consistently deliver defect-free products and/or services, meet our delivery requirements, be cost-competitive and be responsive to our needs.

6. **Supplier Monitoring & Rating.** A supplier's performance will be continuously monitored. Supplier performance will be measured by their ability to meet Spartronics' minimum requirements defined for product quality, delivery performance and responsiveness. Suppliers will be notified periodically of their performance. A supplier must remain in good standing with our customers and failure to do so may result in supplier being placed in a risk category.

Once a supplier is placed in a risk supplier category, the supplier will be notified by their Purchasing or Quality representative and may then be required to submit a corrective action plan for performance improvement.

7. **Supplier Quality Management System Requirements.** Where no specific Quality Management System registration is required, Spartronics requires each supplier to develop a Quality Management System with the goal of compliance to a recognized quality management system (AS9100, ISO9001, ISO13485 are preferred) to assure the requirements of Spartronics' supplied product or service are satisfied. Spartronics supplier quality assurance requirements specified within this document shall be considered minimum quality management system requirements for supplier approval.

Objective evidence shall be on file, at supplier's premises, verifying that such a system exists and is being maintained. Procedures and records shall be available for examination by an authorized Spartronics representative at any time, with reasonable notification.

A copy of any current quality management system registration certificates will be made available to Spartronics upon request.

As determined by the Buyer, the Supplier may be required to have a foreign object debris (FOD) control program.

8. **Change Control Responsibilities.** If there is a change in the supplier's facility location, utilized equipment, or any changes that could potentially impact the quality of products received by Spartronics, the supplier shall obtain approval from Spartronics of such changes in writing prior to implementation. In addition, if a supplier loses an accrediting agency certification or is put on suspension by a registrar, the supplier shall notify Spartronics in writing within 10 working days. When a supplier's certificate expires, a copy of the new certificate shall be forwarded to the Spartronics Supply Chain representative.

9. **Sub-Tier Supplier Management.** It is Spartronics' requirement that suppliers maintain responsibility for all sub-

tier suppliers, flow down purchase order requirements and provide guidance to their supply base consistent with purchase order provisions.

The supplier shall have a process in place to ensure that all sub-tier suppliers have and maintain the ability to provide defect-free materials and services in accordance with Spartronics' delivery requirements.

The supplier shall ensure that all sub-tier suppliers provide timely response to all quality concerns. Requirements for sub-tier suppliers flow down shall be detailed between supplier and Spartronics.

As a minimum, sub-tier suppliers shall maintain applicable acceptance documentation and relevant quality records for a minimum of ten (10) years from date of delivery, unless otherwise stated on the purchase order.

In the case of a distributor, the distributor must maintain the original manufacturer's C of C for material provided and send both the manufacturer's and the distributor's C of C.

If a situation arises where Spartronics must take an active role with a sub-tier supplier to address a specific concern, Spartronics will do so only after supplier notification.

10. **Record Retention.** As a minimum, suppliers and their sub-tiers shall maintain applicable acceptance and inspection documentation and relevant quality records for a minimum of ten (10) years from date of delivery, unless otherwise stated on the purchase order.

11. **Supplier's Sub-tier External Providers.** Suppliers shall flow applicable requirements, including customer requirements to their external providers. The Supplier shall apply appropriate controls to their direct and sub-tier external providers to ensure that requirements are met.

12. **Certificate of Conformance.** At a minimum, the Supplier Certificate of Conformance will contain the following information:

- Company's name and address
- Manufacturer's Name and Part Number
- Date of certification
- Spartronics' Purchase Order Number
- Lot and/or Date Code of the delivered lot
- Quantity supplied
- Part description
- Spartronics' PO Change Order Number (if applicable)
- Spartronics' Part Number (and Revision if applicable) as it appears on the PO/Contract
- Raw material heat/lot number (if applicable)
- Material and test specifications and revision identification (as applicable)

- Reference to test reports for all raw material, traceable by heat/lot number (as applicable)
- Identifications of expectations such as a deviation or waiver (as applicable)
- A signature and title (original or electronic) from a relevant authority within the organization that assures the quality of the products supplied.

13. **Traceability Verification.** The supplier must maintain traceability throughout all steps of the manufacturing process including any outside processing. All suppliers to Spartronics must have a lot identification system that distinguishes one lot from another when shipping finished or raw product. The supplier shall ensure that the supplied products are legibly marked per purchase order and blueprint requirements.

When required by PO, component / product lots must be traceable to raw material lots.

Spartronics will state on the purchase order if Lot Traceable documentation will be invoked for the specific order.

It is the supplier's responsibility to review test reports and C of Cs of supplier-purchased materials or services. All sub-tier supplier C of Cs for material finish and processes must be retained by the supplier and be available for review. Spartronics only assumes responsibility for conformance of material it has provided.

14. **Date/Lot Code Requirements.** The Date/Lot Code provided to Spartronics shall be a unique identifier for a production run. This identifier will be used in our traceability program to reduce the scope of potential recalls that may occur. For this reason, accuracy of this data is extremely important to Spartronics and its customers.

When possible, product supplied on a PO shall be from the same Date/Lot Code. If multiple lots are supplied, each lot shall be individually recorded on the C of C with their respective quantities, part labels and packaging labels all matching.

Each lot/date must be adequately identified to prevent mixing of inventory. Date/Lot Number requirements need to be listed on the packaging, parts, packing slip, and COC.

Multiple Date/Lot Codes, up to a maximum of 3, will be acceptable if all Date/Lot Codes and respective quantities are defined.

15. **First Article Inspection.** When required on PO, the supplier shall perform a First Article Inspection (FAI) that conforms to the requirements of the current revision of AS9102. AS9102 will be used as the FAIR form and submitted to Spartronics. For custom components, the supplier is required to prepare and maintain a First Article Inspection Report (FAIR) for each part number supplied to Spartronics.

16. **Resubmission Guidelines.** Process or product changes require FAIR resubmission. Notification to Spartronics prior to changes is required. Process or product changes are defined as changes in the process or product that could affect its capability to meet design requirements or the durability and reliability of the product, including:

- Use of a process or material other than that used in the previously approved part
- Production from new or modified tools (except perishable tools), dies, molds, patterns, etc., including additional or replacement tooling
- Production from tooling and equipment transferred to a different plant
- Location or from an additional plant location
- Change of a supplier for parts or services (e.g., Heat treating, plating, welding) that affect customer fit, form function durability or performance requirements
- Break in production or product produced after tooling has been inactive for volume production for 24 months or more
- Any changes in material, including not only raw material but also chemical compounds or processes (i.e., paints, adhesives, sealers, lubricants, plating, heat treat processes, etc.) which become a part of the finished product; this includes changing to an engineering approved alternate material or any change in the sequence of operations
- Change in test/inspection method or new technique (No effect on acceptance criteria) Upon request of Spartronics' Purchasing or Quality representative

17. **General Inspection & Test Requirements.** All inspection and testing shall be conducted:

- In accordance with the purchase order / Technical Data Package (TDP) requirements
- With equipment that is appropriate for the required characteristics and tolerances
- Under conditions consistent with the nature of the part and manufacturing processes
- In accordance with documented inspection instructions
- With an appropriately developed statistical sampling methodology
- With measuring test equipment that is calibrated and documented per the Quality Systems requirements

18. **Visual Inspection.** Where possible, acceptance criteria for visual inspections may be defined and quantified by enlarged color photographs and/or actual part samples. Spartronics reserves the right to reject any product that exhibits an unusual visual condition.

19. **Dimensional Inspection / Material Testing.** If the supplier does not have the necessary equipment to conduct the required inspections and tests, an accredited third-party inspection source must be utilized at the supplier's expense. Whenever possible, the supplier should provide variable inspection data rather than attribute data.

20. **Material Test Reports.** If applicable, the supplier shall maintain a certified test report for each heat / lot of materials used in the production of the purchased product. The test report shall contain, at a minimum, the test requirements, actual test results, heat / lot number, and the corresponding specification number and revision level.

21. **Special Requirements, Critical Items, and Key Product Characteristic (KPC).** For lot-traceable custom mechanical parts, the supplier is required to provide evidence of compliance to all customer-identified key product characteristics (KPCs) to Spartronics. KPCs are typically identified on the customer drawing and/or other associated documentation. In addition, the supplier is required to maintain evidence of compliance to any special requirements or critical items identified in this purchase order or associated technical data package.

22. **Performance Test Reports.** If applicable, the supplier shall maintain a certified test report for those materials or products that have functional or safety test requirements specified on the purchase order, drawing, etc. Examples of functional or safety performance tests include push-out and torque-out tests for fasteners, pinch points, static and dynamic strength tests, flammability tests/certifications. The test report shall contain, at a minimum, the test requirements, actual tests results, heat/lot number, and corresponding specification number and revision level.

23. **Sampling Plan.** A single defect shall cause the rejection and 100% inspection of a lot when using sampling plans for final characteristic acceptance unless approved in writing by the Spartronics' authorized Quality representative prior to use.

Sampling plans must meet all requirements imposed in applicable specifications, such as those addressing special processes. In such cases the use of standard sampling plans does not apply (e.g., weld visual inspection, non-destructive testing and examination, fastener applications)

In addition to the sampling plan, any drawing note categorized as a quality assurance provision which identifies a major or critical safety item characteristic must be inspected as indicated.

24. **Right of Access.** During the performance of this contract, Spartronics reserves the right to access all areas of the supplier's facility and applicable sub-tier suppliers for Spartronics and/or customer and regulatory agency representatives to verify products/services. The supplier's quality control, inspection system, and manufacturing processes are subject to review, verification, and analysis.

25. **Source Inspection.** The items and supporting quality documentation covered by the purchase order may be subject

to Customer or Government source inspection and/or witnessing of tests prior to shipment. Spartronics reserves the right to invoke source inspection any time throughout the performance of this contract at no cost to Spartronics. To accommodate source inspection representatives, supplier shall make facilities, equipment, M&TE, inspection records, and assistance readily available.

Government Source Inspection – Upon receipt of the purchase order, the supplier is required to promptly notify their government representative so that appropriate planning for government inspection can be accomplished. In the event the representative or office cannot be located, the Spartronics Quality representative shall be notified immediately. Source inspection documentation must accompany every shipment when invoked. Unauthorized shipment of product without Government source inspection may result in a withholding of invoice payment and shall be cause for rejection.

Source inspection shall not replace supplier inspection or relieve supplier of its responsibility for furnishing an acceptable end item.

26. **Measuring and Test Equipment (M & TE).** Supplier shall maintain calibration for all M & TE such as gages, tools, jigs, fixtures, and dies used to verify conformity to requirements of the drawing / purchase order. The calibration shall be in accordance with a recognized standard and traceable to NIST (or equivalent).

27. **Inspection Records and Status**

Records of Compliance

- Records of compliance shall be formally documented and maintained to ensure that suppliers' products/services comply with the identified purchase specifications, engineering and/or material specifications, and contract requirements.

Records shall provide traceability to specific product/process information including:

- Part/drawing number revision level and quantity
- Applicable specifications with revisions
- Testing or MFG Facility
- Heat/lot number (if required)
- Procedure with revision traceability (if applicable)
- Contract/purchase order
- Government Contract number (if applicable)
- All actual data compared to requirements to indicate acceptability of the product
- The inspector's name, signature, and level of certification (if applicable)
- Date of inspection

Product Work Instructions and process control procedures/plans (including machining, assembling,

inspection, and testing instructions) must be an integral part of the supplier's process and be maintained under revision control.

Computer data files (such as .DXF files) supplied by Spartronics are for reference only and do not prevent the supplier from providing product that conforms to procurement requirements.

Inspection variable and/or attribute data must be documented on dimensional inspection report or equivalent and retained on file. All data must be made available to Spartronics' personnel upon request. At Spartronics' discretion, inspection reports will be requested to be submitted with the product shipment.

Except as the parties may otherwise agree, all supplier records must be written in the English language and specified in the unit of measure designated within the drawing or standard.

28. **Nonconforming Product**. The supplier is responsible for establishing controls to ensure that products / services not conforming to the purchase order are identified, segregated, dispositioned, and controlled to prevent inadvertent use. All costs associated with non-conforming material (including freight, handling, material replacement, inspection costs, rework, etc.) may be charged back to the supplier. Supplier authorization to return nonconforming products are required within 24 hours of notification. Without this authorization, product may be returned at the discretion of Spartronics.

If the supplier identifies a nonconformance with products or material, they shall notify Spartronics' representative. The supplier must quarantine and contain the suspect lot(s) and withhold shipment of these lots until authorization from Spartronics quality representative.

The supplier is responsible to address containment of the nonconforming product at their facility, in transit, and at Spartronics. If suspect product has been shipped, the supplier must notify Spartronics' Quality and/or Purchasing representative within 24 hours and provide complete traceability information for all known or suspect nonconforming product shipped, including but not limited to identification of batch/lot number, purchase order, part identification, and dates of shipment. It may be requested that the supplier send a representative to Spartronics within 24 hours of notification to assist in verification and containment of the nonconforming product and to coordinate any required screening or rework activities.

29. **Corrective Action**. Supplier is responsible for implementing quality systems capable of resolving problems adversely affecting quality and correcting those conditions. Suppliers shall take prompt corrective action to correct assignable conditions, which have resulted or could result in the submission of nonconforming products/services to Spartronics. Corrective action shall be documented and include as a minimum:

- Identification of root cause (primary reason which caused product nonconformance or quality systems deficiency)

- Containment of affected products
- List of required improvements and actions to be implemented to prevent problem recurrence and expected completion dates for actions.
- Verification / validation of the effectiveness of any improvement or corrective action(s) taken
- These records shall be maintained and available for review by Spartronics if requested

Nonconforming material or quality system deficiencies detected by Spartronics may require a supplier response to a Corrective Action Request (CAR). When a CAR is issued, response to Spartronics with investigation details, corrective action plan, and expected completion dates is due within 30 business days of notification. If the 30-day timeline is not able to be met, a request for extension should be submitted to Spartronics prior to due date. A supplier's corrective action format will be acceptable as long as the information requested by Spartronics is contained therein. The CAR will stay open until a Spartronics Quality representative has verified evidence that the actions were effective. Failure to respond to a request for corrective action in a timely manner may place the supplier in the risk category.

30. **Identification Marking**. The supplier shall assure that the supplied products are legibly marked per the specified drawing method, or purchase order requirement. The identification marking shall be as permanent as the normal life expectancy of the item and be capable of withstanding the intended operating environment and cleaning procedure. Legibility shall be required for ready readability and be applicable after the specified protective coatings are applied. When not otherwise specified, as a minimum:
- The part, sub-assembly, or unit number with all applicable suffixes, drawing revision level and the manufacturer identification or CAGE code (if applicable) shall be marked on the supplied product.
 - Any application of coatings shall maintain the manufacturer marking and identify the finisher and process date.

Where the marking method is "optional", notify your procurement representative if marking methods changed from prior shipment.

31. **Part/Component Cleanliness**. The supplier shall furnish parts/components free of mill scale, rust, carbon deposit, weld spatter or any surface contaminant that will be detrimental to the item's appearance or functional appearance (i.e., contamination that is detrimental to the adhesion of coatings). Any part not meeting this criterion is subject to return to supplier for immediate correction.

32. **Technical Documents.** The supplier shall have available all design records (drawings, specifications, etc.) for the products manufactured, including components or details of assemblies and technical standards noted on the drawings. For parts identified as catalog parts, this may consist of functional specification or a reference to a recognized industry standard. Documents are to indicate the date of the design record and the change level and shall include any authorized engineering change documents used in conjunction with the part drawings.
- A Micro-section Analysis Report is required with all shipments.
 - Any impedance test coupons, solderability coupons or other physical samples that are relevant to the lot provided and will not be retained by supplier for minimum retention requirements
33. **Vendor Item Drawing.** Drawings identified as “Vendor Item Drawings” contain a list of recommended approved sources of components and the source’s item identification. Written authorization from Spartronics’ Quality Representative is required if the identified drawing approved source of product or item is not utilized.
34. **Source Controlled Drawings.** Drawings identified as “Source Controlled” contain a list of approved sources of components and the source’s item identification. A request for deviation must be submitted and subsequently approved by Spartronics’ Quality Representative to deviate from the identified drawing source of the item.
35. **ITAR Controlled Drawings.** Supplier acknowledges that Spartronics may provide technical data subject to Export Control laws and any drawings will be indicated as “ITAR Controlled”. This technical data (drawings, as well as components) will not be disclosed to any foreign persons (or dual citizens) or foreign commercial entities, including employees, consultants, subcontractors, vendors, and suppliers. The technical data will only be utilized for the manufacture of articles required by the purchase order. The supplier will convey the same requirements to their sub-tier suppliers. The supplier also agrees to destroy or return all such technical data upon completion of the purchase order.
36. **Specifics for Printed Circuit Board Manufacturing.** Printed circuit boards shall be fabricated in accordance with all applicable standards (e.g., IPC-A-600, IPC-6011, IPC-6012, etc.) defined within documentation. Adjustments to layout and/or specification shall not be allowed without prior written consent of Spartronics. The final product shall be fabricated in accordance with Gerber, fabrication and array documents provided.

With each delivery, the following deliverables are expected:

- Evidence of completion of required testing (e.g., electrical, hi-pot, impedance, etc.)
- Evidence of evaluation/acceptance of the micro-section against customer criteria and IPC requirements
- Evidence of conformance to the assembly requirements (this may be in the form of a Certificate of Conformance)

With each lot, Spartronics will expect the following deliverables (supplied with the first time the lot is delivered):

- A solder sample panel is to be supplied. This may be an x-out panel

37. **Preservation of Product.** Reasonable precautions shall be taken to ensure that parts/products are not damaged during handling or storage at the supplier’s premises. This will include, as applicable, but is not limited to the following:
- Electro-Static Discharge (ESD Protection) per established standard (e.g., ESDA s20.20, IPC, etc.)
 - Moisture Sensitive Component Protection (J-STD-033)
 - Lead finish contamination prevention
 - Protection from physical damage
 - Environmental conditions (Temperature and Humidity) are suitable for the activity being carried out
38. **Counterfeit Mitigation.** Suppliers of Electrical, Electronic, and Electromechanical (EEE) parts shall comply with the requirements included in this section. Suppliers shall maintain a fraudulent/counterfeit EEE parts control plan that documents its processes used for risk mitigation, disposition and reporting of suspect or confirmed fraudulent/counterfeit EEE parts and/or assemblies containing such parts. Use of a recognized National Standard for counterfeit part risk mitigation, such as AS-5553A, is strongly encouraged.

The Seller shall ensure that only new and authentic materials are delivered to Spartronics. The Seller may only provide parts purchased directly from Original

Component Manufacturer’s (OCMs), OCM authorized (franchised) distributors, or authorized aftermarket manufacturers. In this context, the Seller may be the actual OCM or an OCM authorized (franchised) distributor. Use of products that was not provided by these sources is not authorized unless it is first approved in writing by Spartronics. The Seller must present compelling support for its request (e.g., OCM documentation that authenticates supply chain traceability of the parts to the OCM) and include in its request all actions to ensure the parts thus procured are authentic/conforming parts.

The Seller shall disclose in writing at the time of each individual quotation, the source of supply (by company name and location), whether the Seller is authorized (franchised) for the part(s) being quoted and whether the full manufacturer’s warranty is being provided on the quoted material.

The Seller shall participate in monitoring US Government Industry Data Exchange Program (GIDEP) reports and shall act on GIDEP reports that affect product delivered to Spartronics.

- The seller shall issue a GIDEP report when suspect or confirmed counterfeit item(s) are discovered and ensure suspect counterfeit parts are not delivered to Spartronics.

The Seller shall maintain a method of item supply chain traceability that ensures tracking of the supply chain back to the manufacturer of all Electrical, Electronic and Electromechanical (EEE) parts, including those delivered in any assemblies and subassemblies. This supply chain traceability method shall clearly identify the name and location of all the supply chain intermediaries from the manufacturer to the direct source of the product for the Seller and shall include the manufacturer's batch identification for the item(s) such as date codes, lot codes, serializations, or other batch identifiers.

As required, tests and inspections shall be performed in accordance with defined accept/reject criteria provided or approved by Spartronics. The Seller shall prepare and provide to Spartronics records evidencing test and inspections performed and conformance of the product to specified acceptance criteria.

39. **Packaging Requirements.** The supplier is responsible for the packaging of direct materials to assure their proper condition and quality upon delivery to Spartronics.

40. **ESD Protection.** The supplier shall ensure that parts are protected from potential damage that may occur from exposure to static.

Packaging material should be dissipative and/or low generating materials. See Mil-1686 or ESDA s20.20 for additional information.

Parts classified by the manufacturer as Moisture Sensitive, shall be adequately protected to prevent un-needed exposure to moisture prior to, and upon receipt at Spartronics.

- Product must be sealed in an approved Moisture Barrier Bag. A desiccant pouch and humidity card shall be required, per J-STD-033.
- The barrier bag shall be marked with a sticker denoting the material is sensitive to moisture and the J-STD-033 level.
- If the supplier has opened the bag, the number of hours decremented shall be clearly marked on a label found on the outside of the bag.

41. **Specific Product Requirements.** Shelf-Life Material. This applies to synthetic rubber products, potting compounds, shrinkable tubing, epoxies, shelf-life adhesives, sealants, compounds, paints, solder fluxes, solder paste, solder wire and paints. Certificate of conformance for shelf-life materials shall contain the following as a minimum:

- Lot traceability by run batch, lot or date of manufacture
- Shelf-life expiration date (as required by specification)
- Storage conditions to achieve shelf life, if not stated on material packaging

In addition to other requirements previously stated, these products shall be permanently marked with:

- Date of expiration or "best if used by" designation
- Traceability to run, batch, lot, or date of manufacture
- The method of product marking shall not be detrimental to form, fit or function. As dictated by size or configuration, optical marking methods may be applied.
- Product must have a minimum shelf life remaining, in accordance with the Purchase Order requirements.

42. **Special Process Approval.** Special processes are listed on the appropriate drawing and may include such processes as:

- Bonding
- Heat Treat
- Painting / Coating
- Welding
- Plating
- Non-destructive Testing
- Destructive Testing

Suppliers must ensure that documentation supporting process control is available prior to initial processing. This shall include training and or certification of operators and inspectors to specific drawing and specification requirements, and detailed special process procedures with revision control.

When special processes are required, these processes shall be validated and approved by the Supplier's quality representative prior to any production.

Product shipped to Spartronics prior to approval / authorization will be rejected unless Spartronics' responsible Quality representative has waived this requirement.

Changes to process, product or specification require approval prior to implementation.

When a special process is performed by a facility other than the supplier shown on the Spartronics Purchase Order, a copy of the certificate furnished by the sub-tier supplier shall be retained and made available upon request to Spartronics. Approval of the sub-tier must be obtained by Spartronics prior to initial processing.