

**ECI/Electronic Coils
Quality Requirement Codes
Form 90001-981 Rev E**

QUALITY REQUIREMENTS CODES

The following quality requirement codes become an integral part of the purchase order to the extent specified in the purchase order.

- 01- INSPECTION SYSTEM:** The supplier shall implement and maintain an effective quality system complying with the requirements of ISO9001:2008 or equivalent, unless otherwise specified.
- 02- CALIBRATION SYSTEM:** The supplier shall implement and maintain an effective calibration system for measuring and test equipment in accordance with ISO10012 or equivalent.
- 03- RIGHT OF ENTRY:** ECI and its customers reserve the right to inspect any or all the work on this purchase order at the supplier's location. In addition, ECI reserves the right to perform a Quality Assurance Survey of the supplier's facility manufacturing process and quality system to determine their ability to provide a quality product.
- 04- CERTIFICATE OF COMPLIANCE:** The supplier is required to submit a certificate of compliance stating that the parts or materials provided are in compliance with all applicable drawings, specifications and quality requirement codes referenced in the purchase order. The Supplier shall have records available for review to support the certificate of compliance. Such certificates shall as a minimum contain the following: Purchase order number, part and/or drawing number and revision when applicable, quantity in shipment, statement of compliance including all applicable specifications and the signature of an authorized representative.
- 05- PACKAGING:** The supplier shall package material supplied on this purchase order adequately to prevent damage or contamination during shipment and subsequent handling and storage at ECI.
- 06- CHANGE APPROVAL:** The supplier must notify in writing and obtain approval from ECI prior to any changes in specifications, material, design configuration or processes whenever such changes affect ECI's product.
- 07- IN-PROCESS SOURCE INSPECTION:** All items covered by this purchase order are subject to in-process inspection by ECI Quality Representatives prior to the application of epoxy/potting materials, any permanent sealing or closure, or the obscuring of operations specified for inspection. The supplier will notify the buyer with sufficient time for ECI to supply inspection coverage. Evidence of in-process source inspection will accompany each shipment.
- 08- FINAL SOURCE INSPECTION:** All items covered by this purchase order require final source inspection by ECI quality representatives prior to shipment from the supplier's plant. The supplier shall make available (at no additional cost to ECI) the necessary facilities, equipment, and personnel required to determine compliance with all purchase order requirements. The supplier shall notify ECI five days prior to the availability of the material inspection.
- 09- GOVERNMENT SURVEILLANCE:** Government inspection is required prior to shipment from supplier's plant. Upon receipt of this purchase order, the supplier should promptly notify the government representative who normally services his plant, so the appropriate planning for government inspection can be accomplished. In the event the representative or office can not be located, the buyer should be notified immediately. Evidence of such inspection shall accompany each shipment to ECI.
- 10- PERMANENCY OF MARKING:** Markings for part identification shall be permanent and not be affected by common cleaning solvents. The marking shall be capable of passing the tests specified in MIL-STD-202 method 215.

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11- SOLDERABILITY: The material on this purchase order shall be capable of passing the solderability testing specified in MIL-STD-202 Method 208 (ANSI/J-STD-002). Final acceptance will be contingent upon acceptable results of this test at ECI.

The specific solderability test categories (11A-C) are identified below:

11A- Category 1: No steam conditioning requirement prior to solderability test.

11B- Category 2: A 1 hour \pm 5 minutes steam conditioning requirement prior to solderability test.

11C- Category 3: An 8 hour \pm 15 minutes steam conditioning requirement prior to solderability test.

12- HAZARDOUS CHEMICAL INGREDIENTS: The supplier shall submit one (1) copy of Material Safety Data Sheet (OSHA form 20) with the initial shipment generated against this purchase order indicating hazardous ingredients, physical data, fire and explosion hazard data, reactivity data, spill or leak procedures and special precautions to be observed.

13- CURE EXPIRATION DATES: Materials on this purchase order having a limited shelf life shall reflect the manufactured date and the expiration date on the container or Certificate of Compliance. Material must be received at ECI with a minimum of 75% usable shelf life remaining.

14- PHYSICAL/CHEMICAL TEST RESULTS: Physical test results and/or quantitative chemical analysis of raw material supplied or used in the manufacture of parts and/or assemblies traceable to this order must accompany all shipments.

15- INSPECTION TEST RESULTS: One (1) copy of the final inspection and/or test report denoting conformance with all applicable specifications, including quantitative data, shall be submitted with each shipment.

16- FIRST ARTICLE INSPECTION: ECI acceptance of first piece is required prior to the start of a production run. The first piece shall be identified as such and will include the purchase order number, part and/or drawing number, revision when applicable and the part description.

17- QPL SOURCE: The supplier shall provide traceability documentation to the manufacturer's records regardless of whether the supplier is the manufacturer or an authorized distributor. Documentation shall accompany the parts received and identify the manufacturer's name/address and include the manufacturer's lot, serialization and/or date code information and Certificate of Compliance.

18- CERTIFICATE OF ORIGIN: The supplier shall submit one (1) copy with each shipment to certify the origin of all components and parts purchased by ECI in accordance with U.S Custom's regulations and/or ECI's Counterfeit Material Avoidance Policy.

19- DOCUMENTATION RETENTION: The supplier shall retain records of inspections and tests on materials delivered under this purchase order for a minimum period of 10 years. These records shall provide objective evidence of compliance with applicable drawings and specifications, including corrective action, and shall be made available for ECI review upon request. The supplier may elect to waive this data retention requirement by providing the data to ECI, at no additional charge, for retention at ECI.

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20- MAGNET WIRE REQUIREMENTS: Magnet wire supplied on this purchase order shall conform to the requirements of ANSI/NEMA MW1000-2008. In addition the magnet wire shall conform to the requirements of MIL-STD-981B paragraph 5.6.2.1 as follows:

1. Paragraph 5.6.2.1.a- The magnet wire shall conform to the requirements of ANSI/NEMA MW1000 in lieu of verification to Groups A, B and C of Federal Specification J-W-1177.
2. Paragraph 5.6.2.1.b- Each spool of magnet wire prior to being used shall be subjected to the following tests of NEMA MW-1000 (in lieu of J-W-1177); Dielectric test, visual and dimensional examination. In addition a check of bare wire size of the magnet wire by a dc resistance measurement corrected to 20°C (J-W-1177). Acceptance of the magnet wire will be contingent upon acceptable results of these test performed at ECI.
3. Paragraph 5.6.2.1.c- Magnet wire supplied shall not be older than two years from the date of manufacture and pass the following evaluation tests in accordance with ANSI/NEMA MW1000 (in lieu of J-W-1177); Visual and dimensional, Adhesion and flexibility including mandrel test, elongation, springback, DWV at rated temperature, bend (rectangular wire only) and heat shock.
4. Paragraph 5.6.2.1.d- Magnet wire shall be stored in protective resealable containers to protect against damage and dust.
5. Paragraph 5.6.2.1.e- Magnet wire shall have been stored in a clean controlled environment, at a temperature of $+ 25C \pm 7C$ and a relative humidity of between 30-70 percent.

Certification from the magnet wire supplier that the inspections and tests specified for the MW type have been performed per ANSI/NEMA MW1000-2008 as well as the requirements of MIL-STD-981B paragraph 5.6.2.1a, c, d and e (items 1 and 3-5 above) shall be supplied.

21- PREFERENCE FOR DOMESTIC SPECIALTY METALS: The supplier delivering material on this order is required to comply with DFARS 252.225.7014; Preference for Domestic Specialty Metals, Alternate I (Alt I) for prime contracts before Nov 16, 2006 or Alternate I Deviation (Alt I Deviation) for prime contracts after Nov 15, 2006. The supplier shall ensure that the specialty metals used to produce the material have been melted (Alt I) (Alt I Deviation clause adds "or produced") in the United States, its outlying areas or a Qualifying Country as listed in DFARS 225.872.1. The supplier is required to flow down this requirement to its sub-tier supplier(s) and must provide documented evidence of compliance with the material submitted on this order.

22- PLATING, FINISH AND CONDITIONING REQUIREMENTS: The supplier for this order will comply with one of the following two specific plating requirements (20A or B). The supplier is required to flow down the specific requirement to any sub-tier supplier(s) and provide certifications demonstrating compliance to the requirements of this order. These certifications will include any sub-tier certificates of compliance and are required with the shipment of material(s). Evidence demonstrating compliance to the required specifications shall be available for review if required.

22A- NADCAP APPROVED PLATER: Material delivered on this order is required to be certified to the applicable MIL-Spec, ASTM, or other specification(s) identified on the order. The supplier will ensure the plating requirements specified are processed by NADCAP Approved Processor(s) only.

A list of NADCAP (National Aerospace and Defense Contractors Accreditation Program) Approved Processors can be found at www.eauditnet.com by creating an account. Upon access to the account refer to the Buyers Guide under Public Documents for the current listing.

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22B- STANDARD PLATING REQUIREMENTS: Material delivered on this order is required to be certified to the applicable MIL-Spec, ASTM, or other specification(s) identified on the order.

23-COUNTERFEIT MATERIAL AVOIDANCE REQUIREMENTS: Material supplied on the order will be new material only and purchased directly from OEM's or OCM's or their authorized distributors. When purchased from authorized distributors information will be supplied to provide traceability identifiers (lot number, date code, serial numbers, etc) back to the original OEM or OCM. Suppliers will also develop and maintain a Counterfeit Material Avoidance Plan using SAE AS5553 as a guide. A copy of ECI's Counterfeit Parts Risk Mitigation Policy can be reviewed at www.eciworld.com/cft.pdf for further details. Material supplied from other than OEM or OCM's or their authorized distributors shall be approved in writing by ECI's buyer(s) prior to shipment of the material to ECI.

24- FOE/FOD (Foreign Object Elimination/Foreign Object Damage or Debris) Prevention: The Supplier on this order will establish and maintain an effective FOE/FOD Prevention Program using NAS 412 as a guideline. The program will utilize effective FOD prevention practices which are proportional to the sensitivity of the material supplied as well as the FOD generating potential of the supplied packaging. The Suppliers program or policies will be subject to review by ECI and/or customer, including government representatives, and subject to disapproval and corrective action if the program or policies do not accomplish their goals.

25- Gapped Core Marking/Identification Requirements: The cores supplied on this order are required to have the gapped core half clearly marked; preferred method is contrasting ink dot or stripe. The ink dot or stripe or other method approved by ECI shall not add significant dimensional build-up or be easily removed by normal handling or subsequent core cleaning at ECI. In addition the packaging shall clearly identify the gapped and ungapped core halves by marking within and/or on the outside of the supplied packaging.
Note: This requirement does not apply to equally gapped core sets.