

SUPPLIER QUALITY REQUIREMENTS

These Quality Requirements are an integral part of HIRELCO Purchase Orders and can also be found on www.hirelco.net

Standard Requirements

Q1 Quality Management System

SUPPLIER shall maintain a Quality Management System that complies with ISO 9000 or AS9100 requirement unless otherwise agreed upon. The Quality Management System shall be subject to audit by HIREL CONNECTORS INC. SUPPLIER is responsible to notify HIREL CONNECTORS INC. of any changes to their Quality Management System. SUPPLIER shall ensure that employees are fully aware of the importance of conforming to all drawing and specification requirements and the relationship between conformance and product safety to the end user. SUPPLIER shall ensure that business is conducted in an ethical manner at all times. Records of all quality control inspection work by SELLER shall be kept complete and available to HiRel Connectors and its customers.

Q2 OTD 95% or better

SUPPLIER shall maintain delivery (on-time) and quality rating of 90% or better. Table 1 lists the actions HIREL CONNECTORS INC. will pursue if a supplier falls below the required 90% for either rating.

Quality Rating		
Rating	Review Time	Actions
80% to 89%	Quarterly	<ul style="list-style-type: none"> • Notification using QC-F-102 informing supplier of drop in tier. • No immediate action necessary from supplier.
70% to 79%	Quarterly	<ul style="list-style-type: none"> • Notification using QC-F-102 informing supplier of drop in tier. • Quality manager or their designee shall decide if a supplier visit is necessary during quarterly rating meetings.
Below 70%	Quarterly	<ul style="list-style-type: none"> • Notification using QC-F-102 informing supplier of drop in tier. • Visit to supplier shall be scheduled by respective designees from quality and purchasing. • Quality manager or their designees shall decide if a corrective action shall be issued to supplier in question. • Corrective action shall be issued if a supplier falls in this category in two consecutive quarters.
Delivery Rating		
Rating	Review Time	Actions ¹
80% to 89%	Quarterly	<ul style="list-style-type: none"> • Notification using QC-F-102 informing supplier of drop in tier. • No immediate action necessary from supplier.
70% to 79%	Quarterly	<ul style="list-style-type: none"> • Notification using QC-F-102 informing supplier of drop in tier. • Purchasing manager or their designee shall decide if a supplier visit is necessary during quarterly rating meetings.
60% to 69%	Quarterly	<ul style="list-style-type: none"> • Notification using QC-F-102 informing supplier of drop in tier. • Visit to supplier shall be scheduled by respective designees from quality and purchasing. • Quality and Purchasing manager or their designees shall decide if a corrective action shall be issued to supplier in question. • Corrective action shall be issued if a supplier falls in this category in two consecutive quarters.
Below 60%	Quarterly	<ul style="list-style-type: none"> • Visit to supplier shall be scheduled by respective designees from quality and purchasing. • Corrective action shall be issued to supplier in question. • Decision to disapprove supplier shall be made by all affected department managers if a supplier falls into this category for more than 1 quarter in a 12 month period.

TABLE 1: Supplier Rating Actions

Q3 Ethical Behavior

SUPPLIER shall operate its business in an ethical manor, and as needed, convey the requirement for ethical behavior throughout the company.

Q4 FOD

SUPPLIER must have a Foreign Object Debris/Damage program in line with aerospace requirements.

Q5 Counterfeit Material

SUPPLIER must have a Counterfeit Material program to SAE AS5553 and AS6174 guidelines.

Q6 Contribution to Product Safety

HiRel Connectors Inc. produces products that are directly related to human safety. SUPPLIER acknowledges their contribution to meeting product Safety requirements as defined by the purchase order.

Q7 Specialty Metals

Product or materials delivered to HIREL CONNECOTRS INC. must conform to DFARS clauses 252.225-7008 and/or 252.225-7009.

Q8 Pure Tin

The use of pure tin (>95% tin content), or as specified by drawing, specification or contract, is prohibited as a material of construction, plating or finish. Contact Buyer if there is a conflict in requirements.

Q9 Mercury Free

Each shipment must contain a statement certifying material contains no mercury unless otherwise noted on the PO.

Q10 RoHS Compliance

Any material supplied against HIRELCO Purchase Order is required to be compliance to EU Directive 2015/863 for Restrictions of Hazardous Substances, or latest issued unless otherwise specified. RoHS compliant must be indicated on the Certification of Compliance unless otherwise noted on the PO.

Q11 REACH Compliance

Each item supplied in this purchase order must be compliant with REACH latest revision. Certification of Compliance must indicate "REACH compliant" unless otherwise noted on the PO.

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- Q12 Records Retention**
SUPPLIER shall identify, store, protect and make retrievable the created/retained records for a minimum of 10 years unless otherwise specified by HIREL CONNECTORS INC. Purchase Order.
- Q13 Inspection Sampling Plan**
SUPPLIER shall use a zero-based sampling plan (C=0) when inspecting material purchased by HIREL CONNECTORS INC.
- Q14 Right of Access**
HIREL CONNECTORS INC. reserves the right to verify product, documentation and the Quality Management System at the SUPPLIER's facility. HIREL CONNECTORS INC.'s customer may accompany the HIREL CONNECTORS INC. representative. SUPPLIER shall make available space, records, test equipment, personnel or tools necessary to accomplish required verifications.
- Q15 Calibration Requirements**
For inspection and test equipment used on HIREL CONNECTORS INC. product the calibration source shall provide and maintain a system that complies with requirements of ANSI/NCSL Z-540-1, or ANSI/NCSL Z540.3, or ISO/IEC 17025. When requested from HIREL CONNECTORS INC., SUPPLIER shall provide certificate of calibration traceable to the National Institute of Standards Technology (NIST). HIREL CONNECTORS INC. reserves the right to conduct surveillance and review SUPPLIER calibration records and operations for conformance to this clause.
- Q16 Nonconforming Material**
SUPPLIER shall have and maintain a system to insure identification and segregation of nonconforming product. SUPPLIER shall not ship nonconforming product without prior written authority from HIREL CONNECTORS INC. Disposition is limited to rework to specification, RTS and scrap. Request for deviation from specification or purchase order requirements must be submitted to the buyer noted on the Purchase Order and approved prior to shipping product. Nonconforming product for which a "Request for Deviation" has been submitted, will not negatively affect SUPPLIER quality rating.
- Q17 Packaging and Shipping**
All product or material delivered must be packaged and protected from deterioration, handling and shipping damage. HIREL CONNECTORS INC., at their discretion, will return all damaged items to the SUPPLIER at the SUPPLIER's expense. SUPPLIER is required to use best commercial practices unless otherwise specified by HIREL CONNECTORS INC.
- Q18 Certification of Conformance**
A legible and reproducible copy of certification of conformance to purchase order requirements is required. Objective evidence of conformance is to be maintained and available for review. The certificate must contain the supplier name, purchase order number, quantity, part number, revision, lot/batch number and description of the product, the date issued and the signature and title of the authorized representative of the SUPPLIER. If the shipment contains multiple manufactured lots, each lot shall be segregated, packaged separately and identified to maintain traceability.
- Q19 Shelf Life**
Product or materials having definite characteristics of quality degradation with age shall be marked in such a manner to indicate the date at which the useful life is expired. Date of impregnation of impregnated material shall be included in the SUPPLIER shipping documentation or certificate of conformance. Material must have 85% its shelf life upon receipt unless otherwise approve by HIREL CONNECTORS INC.
- Q20 Traceability**
All product or material, and materials made into product, must be identifiable by part number, revision letter and a unique traceability number traceable back to point of origin is required. Traceability records shall be made available to HIREL CONNECTORS INC. upon request.
- Q21 Source Change**
The supplier shall notify HIREL CONNECTORS INC. in writing prior to any change in manufacturing location, manufacturing process, facility permits or registration status.
- Q22 Obsolesces**
The supplier shall notify HIREL CONNECTORS INC. in writing if parts or materials may become, will become, or have become obsolete. Notification to Hirel Connectors Inc. shall be within 48 hours.
- Q23 Conflict Materials**
Supplier must comply with Section 1502 of the Dodd Frank Act for Conflict Materials.

Special Requirements

- QS1 Source Inspection**
Source inspection required by HIREL CONNECTORS INC. Quality Assurance Representative at SUPPLIER's facility prior to shipment. SUPPLIER shall make available space, records, test equipment, personnel or tools necessary to accomplish required inspections. Advance notice to HIREL CONNECTORS INC. must be made at least 3 working days in advance to facilitate scheduling. Evidence of source inspection shall accompany shipment.
- QS2 Government Source Inspection**
Government source inspection required at SUPPLIER s facility prior to shipment. Supplier shall make available space, records, test equipment, personnel or tools necessary to accomplish required inspections. Advance notice to HIREL CONNECTORS INC. must be made at least 10 working days in advance to facilitate scheduling. Evidence of source inspection shall accompany shipment.
- QS3 Electrostatic Discharge Protection**
Static-sensitive devices must be handled per JESD-625 requirements or equivalent and packaged in electrostatic shielding bags or containers and static-sensitive devices warning tags attached to the containers.
- QS4 First Article**
SUPPLIER is to provide a First Article Report as instructed on the PO, a report listing required dimensions and actual dimensions, and stating specific compliance with all technical requirements. First article inspection is based on the requirements of the drawing(s), specification(s) and any purchase order requirements as applicable. Acceptance of first article shall not be considered acceptance of subsequent part production. First Article parts are to be clearly identified on their bags or containers. The First Article Report must contain the HIREL CONNECTORS INC. part number, revision level and description of the product, the date and the signature and title of the authorized representative of the Supplier.
- QS5 AS9102 First Article**
AS9102 first article required.

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QS6 Tooling

All tooling provided by or manufactured for HIREL CONNECTORS INC. product is HIREL CONNECTORS INC. property, and shall be identified as stated on purchase order. Such tooling shall be stored and maintained in such a manner as to prevent damage or deterioration, but at least as well as SUPPLIER stores and maintains its own tooling and materials

SUPPLIER shall maintain insurance for loss of said tooling and materials with HiRel Connectors as payable.

QS7 Special Process Certification

Each shipment shall be accompanied by a legible and reproducible copy of certification of any special processes performed by SUPPLIER or their subcontractors and must maintain objective evidence thereof. Special processes include but are not limited to welding, heat-treating, plating and passivation. The certificate must be dated and must specify the type, level and/or grade of the process used along with evidence/results and must be signed by the responsible representative of the SUPPLIER or agency performing the process.

QS8 NADCAP

NADCAP certification required.

QS9 Synthetic Rubber Components

Each individual package of synthetic rubber components such as O-rings, seals, gaskets, silicone etc. shall be properly marked with the date of cure (quarter and year, i.e. 2Q14), part number/revision, purchase order number, quantity, and manufacturer's identification in accordance with the applicable specification. All lots must be segregated and identified to maintain batch / lot and cure date traceability.

QS10 Destructive Physical Analysis (DPA)

DPA required. SUPPLIER shall provide DPA report as specified on the purchase order.

QS11 Raw Material Analysis and Certification

A certified material analysis report is required containing the signature and title of an authorized representative of the agency performing the test along with specification number, revision and lot identification (heat, batch, and/or cure lot number as applicable to the product).

QS12 Plating – Stripping and Re-Plate

The SUPPLIER shall notify HIREL CONNECTORS INC. prior to strip and re-plate when discrepancies are found.

QS13 Same Packaging for Return

The SUPPLIER must return buyer furnished material with the same packaging method as originally received by the SUPPLIER.

QS14 Plating Workmanship

The visual examination shall be under (10X) magnification. The plated components shall be free from crazing, cracks, void, pimples, chips, blisters, pinholes, pits, nodules, peeling, flaking, separation of plating, sharp cutting edges, burrs, dings, nicks, and other defects that may/will adversely affect life, serviceability, or appearance. Contact marks are permissible as long as there is no exposure of under plate or base metal.