

**QUALITY REQUIREMENTS APPLICABLE TO SUPPLIERS OF ELCO PCB IN  
ACCORDANCE WITH PREVAILING STANDARD OF EN 9100 2016  
AND IATF69492016**

Rev.	Date	Nature of Changes	Editor	Approved By
0	11/11/2012	Original Version	A.R.FLORO	PICHERIT
1	08/08/2018	ALREADY QMP2015_004 UPDATE STANDARD	G LUCCISANO /A.R. FLORO	M. De Vecchis
2	12/04/2019	Update	J.Ciccarone	M. De Vecchis

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**1. Object:**

This specification and associated documents describe all formalized quality requirements to obtain the satisfaction of ELCO. These quality requirements have as purpose the delivery of a product that meets the expectations of the Group and in accordance with the prevailing Aeronautic standard in force and new IATF69492016

Therefore, suppliers undertake:

- To implement and organize all that is necessary.
- To ensure the quality of its products
- To measure and optimize the quality level

**2. Scope**

This specification applies to all ELCO's suppliers. Any exclusion for a paragraph or a specific requirement must be proved and approved by Elco.

This document replaces any contrary clause contained in specifications or terms and conditions of the seller.

This document is obligatory when it is referenced in purchase orders, it can be complemented by technical documents.

**This document is applied and indicated in every quotation request, purchase order, supply contract and it is an integral part of every document referred by the supplier goods from the supply to the delivery.**

**This procedure must be delivered to all suppliers. Every possible request of clarification by the supplier must be pose to ELCO PCB's Purchase Office.**

The acceptance by the provider of a contract for the application of this specification serves as an acceptance of its content. A possible start of application must be the subject of an agreement signed jointly by ELCO PCB and the provider.

### **3. Quality management system**

The supplier is obliged to exercise control and set up a Quality management which satisfies the requirements of this specification through written instructions, implemented and registered. He makes reference to a quality Manual.

### **4. Quality requirements**

#### **PRODUCTS**

The possible supplies of information or recommendation for the performance of a contract will not decrease in no circumstances the liability of the supplier for the final quality of the product.

- **The supplier assumes to provide only products whose quality has been controlled and compliant judged conform to contract or order specifications.** He supports the entire responsibility for the compliance of its supply contracts and those that it provides.
- **The supplier undertakes to inform ELCO PCB all faults found on product quality in delivery or already delivered.**
- **Audits about product and acceptance must be made according to control methods of IPC TM 650.**

When changes have been made from the manufacturer regarding the composition of the products, and/or resources, place of manufacture, as well as any other changes that may have an effect on the finished product (PCB), the supplier accepts to:

[PP18 Elco S.p.A Plant, Elco PCB BV Plant, Elco China plant]

- Inform ELCO PCB, about changes and the results of tests carried out on these changes;
- Do not deliver products without the approval of ELCO PCB;
- Join a sufficient period to enable ELCO PCB to carry out controls or the evidence needed to accept these changes;
- no ship to ELCO PCB Counterfeit Product as described in the PP19 Counterfeit Product Control.

ELCO PCB, upon delivery, can verify received product characteristics according to IPC 1401 procedure. The supplier allows access to staff ELCO PCB at all sites of production of the goods in question.

## ➤ **CHEMICAL and CONSUMER PRODUCTS**

### **Definition**

The following materials are defined as "Chemical and Consumer Products for key processes":

- Chemical products for: Desmearing, PHT, panel/pattern plating, surface finishing, surface treatment, etching solution, stripper, development, oil, solvents.
- Metal: like anode, bar or rod alloy.
- Inks: solder mask, carbon ink.
- Films: photo films, dry film and conformal mask.

### **Technical requirement**

The supplier must assure that all materials are conform to technical requirements most important and to specifications requested by ELCO GROUP (if the Company gives them).

If ELCO GROUP doesn't give no particular specification, the supplier must referred to own technical requirements or to that of the builder. The supplier will give evidence of the conformity at technical requirements through test results.

### **Chemical conformity certificate**

Every batch must arrive with a chemical conformity certificate.

Every batch delivered must be chemical analysed and the related certificate must have the references to the analysis procedures used and the related analytical results determined by the producer. All these information must be sent by the supplier with the materials.

### **Due date**

The supplier must assure the following requirements at the delivering (except for there is a written agreement between ELCO PCB and the supplier):

- Materials with a shelf-life of 3 months can't have more than 45 days of life;
- Materials with a shelf-life of 6 months can't have more than 3 months of life;
- Materials with a shelf-life of 1 year can't have more than 6 months of life;
- Materials with a shelf-life of 2 years can't have more than 1 year of life.

## **RISK MANAGEMENT**

A system for the identification and assessment of risks should be continuously implemented until the conclusion of the contractual requirements.

## **TRACEABILITY**

**The supplier undertakes to keep for a minimum period of 30 years, records related to each product delivered** (history, production's measurements, checks, quality and reliability certificates).

In this sense, the supplier will be able to provide to ELCO part or all of these documents in a time of 72 hours. The loss or the impossibility of access to documents attesting the conformity of a the product delivered is to be reported to ELCO without delay.

## **QUALITY OBJECTIVES**

The supplier undertakes to implement all actions required to achieve the quality objectives assigned by ELCO GROUP, ELCO PCB DEPARTMENT.

Based on periodic measurements of qualitative results achieved by ELCO PCB sanctioning the performance of each supplier.

On the basis of the results obtained, whether it has or has not reached the objectives, and undertake to provide without delay necessary action plans to return to a situation in conformity with the ELCO requirements.

## **5. Packaging Storage and Shipment**

### **PACKAGING**

All products must be delivered clean and not contaminated. Their packaging must be adapted to prevent any physical damage during transportation and storage. The supplier is responsible for the damage of products during the transport.

The supplier can't send different batches or same batches with different due date in the same package. When the mixture is inevitable, all codes (due date and/or batch) must be recorded externally to the package and ELCO PCB will be necessarily informed before the delivery of products.

**ACCOMPANYING DOCUMENTS**

Unless specific indications on Order(s) product(s) associated with the order, must appear on any document delivery:

- 
- The description of the product (s)
- The reference of the product (s)
- The serial number or lot number where appropriate,
- Order number,
- The quantity delivered
- The name of the supplier.
- The date of dispatch,
- The expiry date, if applicable
- The material code of the Elco plant of destination (if possible).

**Product-related documents:**

**A certificate of conformity is imperative for every delivery.**

In the case of delivery by way of derogation, copying of agreement granted by ELCO PCB.

**6. Delivery times**

The supplier undertakes to comply with the contractual schedules. In case of problems that lead to non-compliance with this rule, the supplier must be aware of the risk of delay, inform ELCO PCB and specify:

- Out the source (why) of the delay
- The corrective and preventive actions taken
- The new date negotiated.

**ELCO reserves the right to apply any penalties of delay in the event of non-compliance with the terms of a contract and/or no information for not having kept this commitment, anyway not over 5 days of delay are accepted and 0 no conformity, over these terms action will be request on the quarter by supplier group Vendor Rate .**

**7. Responsibility**

The supplier will have to comply with all the legislative provisions concerning health and safety, and he will ensure that goods potentially dangerous for health or safety will be delivered only with protective and appropriate packaging or in suitable containers.

In compliance with the R.E.A.C.H. (Registration, Evaluation, Authorisation and Restriction of Chemicals - Reg. CE n.1907/2006) directive, on the packaging surface will be identified the risks, for health or safety, managing the content and the safe treatment and storage.

## **8. No Conformity**

### **Abnormality Detected at the supplier**

The Supplier provides to the organization a system of management for non-conformities.

A product rejected or placed on his part in a derogation requests, cannot be delivered without the express written consent of ELCO.

Notwithstanding requests require at least:

- The reference of the Order
- The reference of the product and description
- A detailed description of the nonconformity
- The quantity might
- The cause (s) of non-conformity
- Corrective preventive action activated

Accepted products not withstanding and shipped with the ELCO agreement must be:


- Differentiated from other products
- Clearly identified
- Refer to a supply contract indicated on the certificate of conformity.

### **Anomalies detected in ELCO PCB**

Any non-conformity or anomaly detected by ELCO PCB is the object of a request information or Corrective Action with the supplier. If it committed to respond to the request within 48 hours. After this time, ELCO PCB reserves the right of return all or part of the affected products, when possible.

The supplier undertakes to communicate to ELCO PCB the result of its analysis and the origins of the detected Non compliance causes. Similarly, the provider will communicate to ELCO PCBs, the nature of the actions of protection as well as corrective and preventive actions undertaken on parts remaining to ship and /or present in its stock.

**9. Approval Form**

Company'	
SUPPLIER	
Vendor representative	Stamp
Name	
Function	
Any Comments	
Date	Signature
<p>This document completed and signed shows the consideration and acceptance of general quality requirements described above. It must be returned to ELCO for validation.</p>	
	
PLANT:	
Elco Purchasing Representative	
Name	Date
Function	Signature