

# SPECIFICATION

## EXXELIA MICROSPIRE QUALITY REQUIREMENTS APPLICABLE TO SUPPLIERS




### PURPOSE AND SCOPE:

This specification details EXXELIA MICROSPIRE quality requirements applicable to its suppliers.

### DOMAIN OF APPLICATION:

This specification is applicable to all materials suppliers, to all subcontractors and to all services providers whose supplies are directly linked with the products manufactured by EXXELIA MICROSPIRE.

For example, suppliers of office supplies or of electricity and building maintenance subcontractors are excluded.

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## 1. PURPOSE

This specification details EXXELIA MICROSPIRE quality requirements applicable to its suppliers.

## 2. DOMAIN OF APPLICATION

This specification is applicable to all suppliers whose supply or service is directly linked with the products manufactured by EXXELIA MICROSPIRE.

## 3. REQUIREMENTS

### 3.1. GENERAL REQUIREMENTS

This specification details EXXELIA MICROSPIRE quality requirements applicable to all suppliers receiving a purchase order for materials or subcontracted production, including or not including special processes used by the supplier or its subcontractors.

It sets up complementary requirements to EXXELIA MICROSPIRE general conditions of purchase.

This specification is based on ISO 9001 and EN 9100/AS 9100 standards at their latest issues.

This specification is contractual for all suppliers and is called by every purchase order or contract.

The supplier acceptance of a purchase order referring to this specification is considered as the acceptance of its entire content. Any possible deviation in its application must be addressed with a signed agreement between EXXELIA MICROSPIRE and its supplier. In this way, the supplier commits to:

- Set up an organization having all the necessary resources for the achievement of the provision,
- To reach the objectives set by EXXELIA MICROSPIRE regarding quality and on time delivery,
- To measure and improve its quality level,
- To contribute to jointly improvement actions with EXXELIA MICROSPIRE if necessary.

### 3.2. APPLICABLE DOCUMENTS

When applicable, documents mentioned in this specification are at their most recent issue at the time the purchase order is issued or the contract is signed, otherwise specified by EXXELIA MICROSPIRE:

- ISO 9001: Quality management systems - Requirements,
- EN 9100/AS 9100: Quality management systems – Requirements for aviation, space and defence organizations,
- EN 9102/AS 9102: Quality systems - First Article Inspection,
- EN/ISO/CEI 17050 (or French standard NF L 00-015C): Conformity assessment – Supplier's declaration of conformity.

### **3.3. GENERAL REQUIREMENTS**

#### **3.3.1. Access to facilities and documents**

The supplier and its own suppliers commit to provide EXXELIA MICROSPIRE representatives, EXXELIA MICROSPIRE customers and official authorities with the free access to their facilities and to their documents used for the production of the product and also to facilitate the full accomplishment of their mission.

The supplier must make available to EXXELIA MICROSPIRE representatives and customers all the records proving that all operations have been performed according to the requirements.

If some operations are considered as confidential by the supplier, they must be reported to EXXELIA MICROSPIRE prior to their implementation and they must be the object of terms jointly set by the supplier and EXXELIA MICROSPIRE.

#### **3.3.2. Inspections by EXXELIA MICROSPIRE or by EXXELIA MICROSPIRE customers**

EXXELIA MICROSPIRE reserves the right to make or to let make inspections at the supplier facilities or at its own suppliers. These inspections will not reduce in any way the supplier responsibilities.

These inspections may concern:

- The quality system, the processes and the implemented means or liable to have an impact on the carrying out of the work (purchase order or subcontracting order),
- The manufactured products or the products being manufactured.

These inspections must not be used by the supplier as a proof of its actual control of the quality and do not offload him from its responsibilities to deliver a product in accordance with the requirements.

#### **3.3.3. Inspections by official authorities**

When EXXELIA MICROSPIRE provision concerns a contract or a purchase order subject to official organisms monitoring, the monitoring clause is mentioned on the document relating to the provision (purchase order, contract...).

The supplier will inform the local official monitoring authority and will enforce the rules set by the Délégation Générale de l'Armement (DGA).

The supplier must enforce the rules set by the civil aviation authority for production and maintenance (PART 21-G and PART 145).

The official authorities have the right to inspect the facilities and all the production steps used by the supplier and its own suppliers for the delivered product.

### 3.3.4. Product acceptance

The product must be compliant with the requirements detailed in the EXXELIA MICROSPIRE purchase order and associated documents. It is the supplier responsibility to check that the reference and the revision of the specifications, drawings, processes related requirements, inspection/checking instructions and the other relevant technical data have the same revision as those present on the purchase orders.

In the case the supplier does not have available documents at the right revisions, it must contact EXXELIA MICROSPIRE as soon as possible in order to update them. The supplier is selected according to its skills and its expertise. As such, it is also the guarantor of its job according to the rule book.

The products must be delivered with a declaration of conformity according to EN/ISO/CEI 17050 standard that must at least consist of:

- The product part number or its drawing number with its issue or revision number,
- The delivered quantity,
- The technical specifications applicable to the product (EXXELIA MICROSPIRE specifications, standards, etc),
- The production or subcontracting lot number,
- If some nonconformities are present and if they have been accepted by EXXELIA MICROSPIRE, the reference of the acceptance documents.

In case of a delivery subject to a waiver, the waiver request approved by EXXELIA MICROSPIRE must be delivered with the products. (see 4.4.17.).

In case of a delivery of raw materials or of semi-finished products, an inspection and test report or a measurement report must be delivered with the declaration of conformity if it was requested on the EXXELIA MICROSPIRE purchase order (see 4.4.16.).

The access to the complementary documentation must be possible without damaging the product packaging.

By default, the products received by EXXELIA MICROSPIRE are considered as being under quality control delegation (ship to stock).

### **3.4. REQUIREMENTS FOR THE QUALITY MANAGEMENT SYSTEM**

#### **3.4.1. Quality management system**

Requirements of ISO 9001 and EN 9100/AS 9100 at their latest revision are applicable.

EXXELIA MICROSPIRE suppliers must be EN 9100/AS 9100 certified by a third party organism. If not, EXXELIA MICROSPIRE expects that the quality system of its suppliers is compliant with the requirements of EN 9100/AS 9100 at its latest revision.

The supplier must inform EXXELIA MICROSPIRE of any modification of its certificates and of every major modification of its quality management system.

#### **3.4.2. Control of records**

The supplier must keep or make kept its records and the records of its suppliers relating to the quality of the products for at least 30 years following the products delivery (see 4.4.22.).

The loss of the records or the impossibility to access the records proving the conformity of the delivered products must be immediately communicated to EXXELIA MICROSPIRE.

The supplier must be able to provide the documents relating to the traceability of the products within a 48 hour timeframe following EXXELIA MICROSPIRE request.

EXXELIA MICROSPIRE reserves the right to check the conformity of the filing system of the records by the supplier or its own suppliers, in particular through traceability tests.

#### **3.4.3. Management responsibility**

The supplier must inform EXXELIA MICROSPIRE of the modifications of its quality management system (for example, modification of key personnel, modification of facilities, etc).

#### **3.4.4. Resource management**

In case of a modification of facilities (moving, reorganization, *ERP change*, etc), the supplier must set and implement the necessary measures in order to secure the quality of the products (quality plan transfer plan, etc) while securing the continuity of its activity and it must inform EXXELIA MICROSPIRE.

#### **3.4.5. Flow-down of the requirements**

The supplier is responsible of the communication of all EXXELIA MICROSPIRE quality requirements to its own suppliers.

Every supplier requiring other suppliers (even if they are imposed by EXXELIA MICROSPIRE) takes on its entire responsibility the works performed by them regarding EXXELIA MICROSPIRE and its customers.

The supplier commits to communicate in writing to EXXELIA MICROSPIRE every error found in this specification or in the contract that can cause a nonconformity and to inform EXXELIA MICROSPIRE in case these requirements are nor clearly defined.

### **3.4.6. Control of production process changes**

Before being implemented, any change affecting significant operations must be submitted to EXXELIA MICROSPIRE for approval.

This change request must be documented with the maximum of information and with its technical supporting documents in order to make easier its analysis and processing by EXXELIA MICROSPIRE, as well as with all the documentation impacted by the change (work flow chart, procedures, etc).

The supplier must keep history records of the changes of all the documents relating to the process.

### **3.4.7. First Article Inspection or FAI (see EN 9102/AS 9102)**

The delivery of a FAI is required by MICROSPIRE in the following cases:

- For the first production of a series of product (new supply or material),
- Correction or fix following a first presentation,
- Change of design,
- Change of material,
- New tool or modification of a tool,
- Change of production location,
- Change of rank 2 subcontractor of the supplier,
- Change in process,
- Production stopped for more than 2 years,
- EXXELIA MICROSPIRE request.

This inspection will be performed in accordance with EN 9102/AS 9102 standard for all the products intended for aeronautics or space application.

In case the delivery is done with a change of process, material or location without prior EXXELIA MICROSPIRE approval, EXXELIA MICROSPIRE reserves the right to return the parts to the supplier and to request their replacement.

### **3.4.8. Special processes qualification (see EN 9100/AS 9100)**

The supplier must ensure that human and material means, as well as the corresponding procedures used for the implementation and the qualification of the special processes allow to get a repetitive quality meeting the requirements specified by EXXELIA MICROSPIRE.

These requirements are applicable to every special process implemented by EXXELIA MICROSPIRE suppliers and their own subcontractors.

In case of a process subcontracted by the supplier, the supplier must:

- Ensure of the initial qualification of the special process,
- Continuously supervise the process implementation.



#### **3.4.9. Control of the obsolescence**

The supplier must make put in place a process in order to identify the materials, processes or products with a potential obsolescence.

Whenever it has identified an obsolescence risk or a recognized obsolescence, it must immediately inform EXXELIA MICROSPIRE and suggest risk mitigation or substitute solutions.

#### **3.4.10. Control of the product provided by EXXELIA MICROSPIRE**

The supplier must put in place a process in order to guarantee the safety of its facilities, stock areas and logistics means in order to avoid any risk of inadequate use of the products delivered by EXXELIA MICROSPIRE.

#### **3.4.11. Identification and traceability**

The supplier must maintain the configuration identification of the product in order to identify any deviation between the real configuration and the approved configuration.

When means are used for realizing the acceptance (stamps, electronic signatures, passwords, etc), the supplier must preset and must describe the control of these means.

The system implemented by the supplier must allow:

- To trace all the products manufactured with the same lot of raw materials or with the same production lot, as well as the destination (shipment, scrap, etc) of all the products from the same lot,
- To find all the production documentation for a given product (production records, inspection records, etc).

#### **3.4.12. Preservation of product**

The supplier must preserve the product conformity during internal processes and during delivery to EXXELIA MICROSPIRE. This preservation must include identification, handling, packaging, stocking and protection.

The supplier must ensure that the documentation requested by the EXXELIA MICROSPIRE purchase order is delivered with the product and that it is protected from any loss or damage.

#### **3.4.13. Control of monitoring and measuring equipment**

The supplier must maintain a register of its inspection and measuring equipment specifying:

- The equipment type,
- Its specific identification,
- The periodicity of its verifications,
- The procedures used for its calibration or verification,
- The acceptance criteria.

The supplier must ensure that the environmental conditions are appropriate for the calibrations, verifications, measurements and tests.

#### **3.4.14. Measurement, analysis and improvement**

The supplier must plan and implement the monitoring, measurement, analysis and improvement processes needed.

According to the nature of the product and depending on the specified requirements, statistical techniques can be used to support:

- Failure modes and effects analysis (FMECA),
- Design of experiments,
- Statistical process control (SPC),
- Process capability measurements,
- Sampling plans adjustments regarding the criticality of the process,
- Selection and inspection of key characteristics.

When key characteristics have been identified, the supplier must ensure that they are controlled and monitored. When the supplier uses sampling inspection as a mean of product acceptance, the sampling plan must be justified on the basis of recognized statistical principles and appropriate for use.

On request, the sampling plan will be submitted to EXXELIA MICROSPIRE for approval.

#### **3.4.15. Internal audits**

The internal audits performed by the supplier must also be about the implemented processes and the manufactured products accepted at the final inspection.

These audits must be performed at least once a year.

During an internal audit, if the supplier identifies nonconformities affecting a product already delivered to EXXELIA MICROSPIRE, it must inform EXXELIA MICROSPIRE within a 24 hour timeframe and it must provide all the delivery details regarding the suspected products.

#### **3.4.16. Control of production**

Production processes must be planned and then realized according to approved data. These data can consist of, as much as is needful:

- Drawings, parts bills of materials, production flow charts including inspection operations and operational documents (production drawings, work order travelers, work instructions, inspection documents, etc),
- Register of specific tools and instructions necessary for their operation,
- Personnel training plans and qualification records.

At all steps of the production, the supplier must:

- Ensure the quantitative monitoring (parts quantity, splitting of the work orders, nonconformities, etc),
- Ensure the implementation of the inspection plans when key characteristics have been identified,
- Provide proof that all production and inspection operations have been performed as planned or, in case of a change, that the change has been documented and approved.

### 3.4.17. Proof of conformity

On request, the supplier must prove EXXELIA MICROSPIRE that the product is compliant with the specifications.

This can include the supplier conformity documents, analysis reports and/or test reports.

### 3.4.18. Control of nonconformities

The supplier commits to provide a product in accordance with EXXELIA MICROSPIRE requirements. The products must be free from any defect and must be in all respects in accordance with the requirements mentioned in the purchase order and in associated specifications or drawings.

The supplier must inform EXXELIA MICROSPIRE, with the appropriate form, for any detection of problems relating to the process or the documentation that could generate or generate nonconformity of the product with regard to contractual requirements. This form must be transmitted within 3 days to EXXELIA MICROSPIRE quality department for decision.

The supplier must analyse the affected lots, identify them in its workshops and alert EXXELIA MICROSPIRE. This is applicable to all current EXXELIA MICROSPIRE orders but also to all orders already delivered. In the latter case, EXXELIA MICROSPIRE reserves the right to return all the nonconforming parts to the supplier and to request their replacement with conforming parts on an emergency basis with no time limit.

In order to avoid any confusion and any allocation error during receiving at EXXELIA MICROSPIRE, products subject to a waiver must be:

- Clearly identified with a tag or any other mean easily identifiable,
- Packed separately and split from the other products,
- Delivered with the waiver approved by EXXELIA MICROSPIRE.

This information must be referenced on the packaging and on the delivery note. It must mention the product quantity subject to an anomaly processing by EXXELIA MICROSPIRE.

In case the product anomaly is detected after the delivery to the EXXELIA MICROSPIRE customer, EXXELIA MICROSPIRE reserves the right to request the supplier for the assessment. In that case, the assessment terms are jointly defined by the supplier, EXXELIA MICROSPIRE and/or EXXELIA MICROSPIRE customer in order to:

- Determine the root cause of the anomaly,
- Set the necessary corrective actions in order to eradicate the defect on the products being produced, stocked or delivered.

**3.4.19. Nonconformity detected by EXXELIA MICROSPIRE**

At the receipt of a “supplier nonconformity form” (fiche de non-conformité fournisseur) issued by EXXELIA MICROSPIRE, the supplier must within & 48 hour timeframe contain all the parts that could present the same nonconformity and it must acknowledge its receipt to EXXELIA MICROSPIRE.

The EXXELIA MICROSPIRE complaints transmitted to the supplier must be processed by the supplier within a maximum 15 day timeframe and the “supplier nonconformity form” filled in by the supplier must be returned to EXXELIA MICROSPIRE.

The supplier must proof that it has implemented the necessary and efficient corrective actions that will avoid any recurrence of the noticed defect.

EXXELIA MICROSPIRE keeps the right to return the nonconforming parts or the whole lot for screening and/or replacement with no time limit.

**3.4.20. Passing on of the cost of the nonconformities**

In the case some nonconformities are detected at EXXELIA MICROSPIRE or at EXXELIA MICROSPIRE final customer, EXXELIA MICROSPIRE reserve the right to pass on the cost of the nonconformities to its supplier by sending it a credit note.

This request will take into account the cost of the materials depending on the state of progress of the EXXELIA MICROSPIRE products including the supplier nonconforming products and the cost of the nonconformity processing borne by EXXELIA MICROSPIRE.

**3.4.21. Analysis of the quality data**

The supplier must analyse the quality data relating to the purchased products. EXXELIA MICROSPIRE reserves the right to request a quality assessment from the customer.

**3.4.22. Continual improvement**

The supplier must permanently improve the effectiveness of its quality management system through the use of all the available tools (quality policy, quality objectives, audit results, analysis of data, corrective and preventive actions, etc).

**3.4.23. Filing**

All the documentary evidences of the qualification performed by the supplier (qualification file, test pieces) and of the production and inspection operations (travellers, inspection records, tools and operators qualifications, etc) must be filed for a minimum of 30 years.

**3.4.24. Materials with an expiry date**

*Except prior approval from EXXELIA MICROSPIRE, the supplier of materials with an expiry date must deliver EXXELIA MICROSPIRE only with materials which remaining life is at least 80% of their total life as specified by the manufacturer.*

**3.4.25. REACH**

*The supplier must inform EXXELIA MICROSPIRE whenever one of its products or materials contains more than 0.1% weight/weight of a substance of very high concern (SVHC) according to REACH EC 1907/2006 regulation. This list is available at <http://echa.europa.eu/web/guest/candidate-list-table>.*

**3.4.26. Export Control**

*The supplier must inform EXXELIA MICROSPIRE whenever one of its products or materials is subject to Export Control and final destination regulations as ITAR, ML-US or DU-US and he must inform EXXELIA MICROSPIRE of any restriction for these products or materials.*

**3.4.27. RoHS**

*The supplier must inform EXXELIA MICROSPIRE about the compliance or the non-compliance of the delivered products regarding RoHS EC 2011/65 regulation for the limitation of dangerous substances in electronic and electric equipment.*

*If requested by EXXELIA MICROSPIRE, the supplier commits to provide EXXELIA MICROSPIRE with the certificates ensuring the compliance of its products.*

**3.4.28. Conflict Minerals**

*The supplier commits to deliver only products compliant with Conflict Minerals regulation (Dodd-Frank Act, section 1502) regarding tantalum, tin, tungsten and gold coming from Democratic Republic of the Congo or bordering countries.*