





ASTEELFLASH
YOUR EMS PARTNER

SUPPLIER GENERIC REQUIREMENTS

QUALITY ASSURANCE REQUIREMENTS FOR SUPPLIERS, PROVIDERS AND
SUBCONTRACTORS

Version	Date	Writing	Object of evolution	Verification	Approval
2	11/06/2024	T. LANOE	Modification §4.1; §4.3.1; §4.5; §4.9; §5.1.2.1; add a new §4.8; Adjust sequence of §; Add §4.8; Modification §4.7; §5.1.1.7; §5.1.2.5; 4.2 Conflict Mineral5.1.1.7 adding AS/EN9100 requirements	L. LE BERRE T. AZEVEDO E. GIRAULT O. MAZZOUZ	R. KAROUN
1	23/04/2018	L. LE BERRE	Release of the document.	R. KAROUN	V. PRADIA

	REQUIREMENTS	Ind: 2	1/12	
	Supplier Management Manual	Reference: CRP_09_PRO_009_A		



1. PURPOSE

This Manual defines the quality requirements applicable to all services and products provided by suppliers to ASTEELFLASH.

2. SCOPE



This Manual is applicable to all suppliers (delivering items, operations necessary to manufacture products delivered to customers and all providers) of ASTEELFLASH.

The supplier remains, whatever the level of subcontracting, responsible for the conformity of the delivered products/ services.

	REQUIREMENTS	Ind: 2	2/12	
	Supplier Management Manual	Reference: CRP_09_PRO_009_A		

3. SUMMARY

1.	PURPOSE	1
2.	SCOPE	1
3.	SUMMARY	2
4.	GENERAL REQUIREMENTS	3
4.1	SUSTAINABLE PROCUREMENT	3
4.2	CONFLICT MINERAL	3
4.3	RESPECT FOR HEALTH, SAFETY AND ENVIRONMENT	3
4.3.1	EHS Approach	3
4.3.2	Dangerous substances regulations	4
4.4	CARBON FOOTPRINT	4
4.5	QUALITY SYSTEM	4
4.6	SUPPLIER AUDIT	5
4.7	INDUSTRIAL CHANGE	5
4.8	QUALITY TARGETS	5
4.9	NON-CONFORMITY MANAGEMENT	5
4.10	CYBER SECURITY	6
5.	SPECIFIC REQUIREMENTS	7
5.1	MANUFACTURER, DISTRIBUTOR, SUB-CONTRACTING	7
5.1.1	Quality assurance requirements	7
5.1.1.1	Statutory, regulatory and product safety requirements	7
5.1.1.2	Specifications related to product types	7
5.1.1.3	Competence, Training and Awareness	7
5.1.1.4	Calibration	7
5.1.1.5	Process validation	7
5.1.1.6	Prototype / Initial Sample / FAI	8
5.1.1.7	Special/ Key Characteristic	8
5.1.1.8	Configuration Management System	8
5.1.1.9	Traceability	9
5.1.1.10	Batch Constitution	9
5.1.1.11	Export control	9
5.1.1.12	Anti-counterfeiting policy	10
5.1.1.13	Foreign Object Detection (FOD) policy	10
5.1.1.14	Perishable or limited shelf-life product	10
5.1.1.15	Obsolescence	10
5.1.2	Supply Chain requirements	10
5.1.2.1	Purchasing Process	10
5.1.2.2	Purchasing Information	10
5.1.2.3	Verification of Purchased Product	11
5.1.2.4	Storage, handling and packaging	11
5.1.2.5	Delivery	11

	REQUIREMENTS	Ind: 2	3/12	
	Supplier Management Manual	Reference: CRP_09_PRO_009_A		

4. GENERAL REQUIREMENTS

4.1 SUSTAINABLE PROCUREMENT

The ASTEELFLASH group ensures the implementation of a responsible purchasing policy and collaborates with suppliers whose commercial and industrial practices respect the following principles:

- Respect legal requirements
- Contribute to a safe and healthy work environment
- Commit to diversity and respectful working conditions
- Provide a healthy and safe working environment and comply with all health and safety laws, regulations and practices
- Comply with all laws relating to the minimum working age and have no recourse in any circumstances to child labor
- Have no tolerance to slavery and human trafficking (1)
- Comply with all laws in force relating to remuneration, overtime and working hours and conditions.
- Guarantee confidentiality
- Avoid conflicts of interest
- Refuse any form of corruption or collusion and any type of coercion or pressure
- Develop fair and transparent business practices avoiding any personal conflict of interest.

(1) In accordance with section 54 of the Modern Slavery Act 2015 (UK Regulation)

4.2 CONFLICT MINERAL

Asteelflash is committed to sourcing responsibly and considers mining activities that fuel conflict as unacceptable. Asteelflash's efforts related to conflict minerals are aligned to the work of the Conflict-Free Sourcing Initiative (CFSI), an initiative of the Electronic Industry Citizenship Coalition and the Global e-Sustainability Initiative. The CFSI's work includes the Conflict-Free Smelter Program and the Conflict Minerals Reporting Template ("Template").

Please be advised that an updated version of the Conflict Minerals Reporting Template is available at www.conflictreesourcinginitiative.org.

Asteelflash's suppliers currently using prior versions of the Template should consider transitioning to the new version of the template.

The information contained in the Template constitutes a critical part of Asteelflash's due diligence program.(2)



(2) 1 In July 2010, the U.S. Government signed the Dodd-Frank Wall Street Reform and Consumer Protection Act (the "Dodd-Frank Act"). Section 1502 of the Dodd-Frank Act requires all US publicly traded companies to file disclosures and reports with the U.S. Securities and Exchange Commission related to the use of conflict minerals (tin, tantalum, tungsten and gold) in their products.

4.3 RESPECT FOR HEALTH, SAFETY AND ENVIRONMENT

4.3.1 EHS Approach

As part of its Environment Health and Safety (EHS) approach, ASTEELFLASH requires its suppliers to:

- Comply with the applicable regulations in terms of Health, Safety, Environment
- Provide necessary training and protective equipment
- Alert ASTEELFLASH on supplies that may affect the health and safety of staff
- Alert ASTEELFLASH in case of potential environmental impact of the supplies, and advise ASTEELFLASH should supplier set up an HSE management system

	REQUIREMENTS	Ind: 2	4/12	
	Supplier Management Manual	Reference: CRP_09_PRO_009_A		

- have a plan to improve Health, Safety and the Environment by integrating the following criteria in its processes:
 - Research and proposal to customer of solution that reduces risks during interventions
 - Research and proposal to customer of significant reduction of incoming packaging

ASTEELFLASH can perform audits and/or assessments in the areas of Health, Safety and Security, Environment at the suppliers' facilities to ensure its suppliers' compliance with regulations and effectiveness of their HSE management system.

4.3.2 Dangerous substances regulations

Many countries have put in place regulations to regulate the production and use of chemicals in order to limit their negative effects on human health and the environment.

The supplier shall be aware of and comply with dangerous substances regulations (i.e., China REACH (CN), the Toxic Substances Control Act (TSCA) (USA), the REACH Regulation (EC No. 1907/2006) (EU)...). It must communicate to ASTEELFLASH all necessary information concerning the presence of hazardous substances in its supplies to ASTEELFLASH.

4.4 CARBON FOOTPRINT

Asteelflash is committed and challenged by their stakeholders to act against climate change. We expect our suppliers to share our environmental inspirations. We encourage our suppliers to calculate their carbon footprint and expect they can answer carbon footprint information request ensuring its accuracy. Suppliers shall implement a policy to reduce GHG emissions in their business and therefore their product and/or services.

4.5 QUALITY SYSTEM

Depending on the market type and the criticality of the parts/service, the supplier is asked to be at least compliant with a minimum level of QMS and ensure its continuous development to achieve the target communicated by ASTEELFLASH.



For critical supplies intended for a specific sector of activity (military, space, aeronautics, automobile, medical, railway ...) the supplier shall have a management quality system, certified by an accredited body, responding to requirements of the Quality System Model specific to this line of business, or ensure development and certification of corresponding quality system.

Business	Aeronautic, Spatial, Defense	Automotive	Railway	Medical devices	Telecom
Certification	EN/AS/JS 9100 EN/AS/JS 9120	IATF 16949	IRIS ISO/TS 22163	ISO13485	TL9000

When its suppliers are not intended for a specific sector of activity, the supplier shall have a quality assurance system, certified by an accredited body, meeting the requirements of the ISO 9001 quality management system.

Failure to comply with the required target certifications, the supplier is obliged, at the request of ASTEELFLASH, to comply with the arrangements made for quality assurance, in particular:

- The organizations have set up for the quality, control and maintenance aspects
- Any evolution of these organizations
- How it guarantees the staff's maintenance and development of skills

	REQUIREMENTS	Ind: 2	5/12	
	Supplier Management Manual	Reference: CRP_09_PRO_009_A		

4.6 SUPPLIER AUDIT

ASTEELFLASH and its customers, via an eventual third-party provider, reserve the right to audit the supplier whether or not a quality problem has occurred. An audit date will be agreed in advance and the supplier will commit to the proper conduct of the audit. An audit report will be written and transmitted by ASTEELFLASH to the Supplier.

For products submitted to regulatory authorities (Ex: product for avionics, defense and space ...), the supplier must give the right of access to its sites concerned by the purchase order and its records for ASTEELFLASH, its customers and the regulatory authorities.

ASTEELFLASH will be able to perform audits or quality inspections in the supplier's premises (and if necessary, in the premises of the supplier's subcontractors) in order to verify:

- the supplier's compliance with the requirements of the present Manual
- the conditions under which the contract or purchase order is fulfilled
- the conformity of the product to the specified requirements
- the compliance of the processes with the specified requirements
- the implementation of the requested corrective actions

4.7 INDUSTRIAL CHANGE

Any significant industrial change must be communicated to ASTEELFLASH via an official document (Industrial changes include the following: ERP, process or equipment evolution, place of manufacture, organization, change of supplier, transfer...)

Depending on the case encountered, the supplier may submit a risk assessment file and/or a validation plan at the request of ASTEELFLASH with the prior approval of ASTEELFLASH.

4.8 QUALITY TARGETS

ASTEELFLASH is dedicated to a zero-defect philosophy regarding the delivery of products to our customers and intends to bring along suppliers into this commitment.



If a zero-defect cannot be assured, then a maximum target for defect rate can be agreed between ASTEELFLASH and supplier*. This target may be reevaluated on a yearly basis considering past performances and shall tend towards continuous improvement. Beside this maximum target agreement, suppliers still must be engaged to deliver parts free of defect and maintain non conformity management.

**Except for "cots products (Commercial Off-The-Shelf products)" where quality target shall correspond to the datasheet.*

4.9 NON-CONFORMITY MANAGEMENT

The supplier shall implement a non-conformity management system that must include provision for:

- Identification of non-conforming
- Segregation of such material or parts from acceptable items
- Documentation defining the nature of the defect and what remedial/corrective action has been authorized and undertaken
- Corrective action and update of necessary documentation
- Continuous improvement plan
- Monitoring of non-conformity management

	REQUIREMENTS	Ind: 2	6/12	
	Supplier Management Manual	Reference: CRP_09_PRO_009_A		

Nonconforming material may not be delivered without prior written approval of ASTEELFLASH.

A supplier Corrective Action Request will be sent to the supplier. The initial response with containment action is required within 24 hours. A corrective action plan is expected to be defined within 15 calendar days. The closure is expected to be under 30 calendar days, if this deadline is not achievable the new deadline must be communicated to Asteelflash.



For material, all containment and/or replacement costs incurred by ASTEELFLASH will be charged back to the supplier. These costs may include, without limitation, the following:

- Administration cost
- Any sorting cost required prior to receiving certified stock or supplier support for sorting
- Shipping cost to return product
- Possible VAT, duties or any custom related charges paid by ASTEELFLASH
- Charge backs from our customers
- Scrap product and line down time

4.10 CYBER SECURITY

Supplier shall establish and maintain an information and system security program to protect data and systems from unauthorized access, loss, alteration, misuse, malicious threats and other unintended activities. Supplier shall comply with all applicable Data Protection Laws in its supply performances for ASTEELFLASH. All the data/information exchanged between ASTEELFLASH and the supplier must be protected from being misappropriated. Supplier are encouraged to implement secure data handling best practices, maintain appropriate network security measures, install anti-virus and malware protection software and control accesses to restricted personnel with authorization.

Supplier shall maintain recovery plans to ensure the ongoing availability of its services based on industry standards and best practices.

	REQUIREMENTS	Ind: 2	7/12	
	Supplier Management Manual	Reference: CRP_09_PRO_009_A		

5. SPECIFIC REQUIREMENTS

5.1 MANUFACTURER, DISTRIBUTOR, SUB-CONTRACTING

5.1.1 Quality assurance requirements

5.1.1.1 Statutory, regulatory and product safety requirements

The supplier shall identify any applicable statutory and regulatory requirements regarding the country of receipt, shipment, and delivery. If ASTEELFLASH or its customer defines critical characteristics regarding product safety or statutory and regulatory requirements, the supplier shall ensure they are implemented, controlled and maintained as defined, including its own suppliers.

5.1.1.2 Specifications related to product types

The supplier undertakes to respect the following specifications and transferred final customer specific requirements according to the services requested

- **CRP_09_PRO_009_B:** PCB Generic Requirements
- **CRP_09_PRO_009_C:** Mechanical Parts Generic Requirement
- **CRP_09_PRO_009_D:** Cable & Wire Generic Requirement

5.1.1.3 Competence, Training and Awareness

The supplier:

- identifies the key posts for the product's quality and which call for staff accreditation
- provides evidence that operators are accredited and trained in ASTEELFLASH's products and in ASTEELFLASH's technical and industrial requirements
- Ensure that people are aware of the relevance and importance of their activities and how they contribute to the achievement of the quality objectives, of their contribution to product safety and the importance of ethical behavior
- describes the decision criteria for such accreditation and its follow up
- keeps appropriate records

5.1.1.4 Calibration

Equipment calibrations shall be traceable to an appropriate national standard. External calibration / Testing Service providers are required to be ISO/IEC 17025 certified or national equivalent.

5.1.1.5 Process validation

The control of the production requires the control of the processes implemented internally as well as at ASTEELFLASH's suppliers' level. Depending on their complexity and impact, these processes require appropriate levels of monitoring.



As such, it is the supplier's responsibility to provide, upon ASTEELFLASH's request, evidence of the validation of the processes implemented or to present its validation plan.

The supplier must identify the special processes ("Process where the results cannot be completely verified subsequently by a control or test on the product and the consequence of defects therein may only become apparent on the use of such product.") employed in the manufacture of the product.

These special processes must be qualified by the supplier before being used.

The significant process parameters must be identified, controlled and recorded.

These provisions apply equally to special processes that have been subcontracted.

	REQUIREMENTS	Ind: 2	8/12	
	Supplier Management Manual	Reference: CRP_09_PRO_009_A		

The qualification dossier for the special processes must be available for consultation by ASTEELFLASH, upon request.

5.1.1.6 Prototype / Initial Sample / FAI

During project, the supplier will produce prototypes and initial samples. Prototypes can be used for design approval and validation of feasibility, so they must at least be produced according to the product drawing. Compliance with the other elements of the specifications will be agreed between ASTEELFLASH and the supplier.

The Initial Samples (IS) are used for the product-process validation: as such, they must be produced according to the specifications as a whole. In particular, they must be produced with the serial production process.

Outside the project mode, any first production of a product after a change of index or a process change (line transfer, new tooling, etc.) must also lead to the production of initial samples.

The acceptance of these prototypes and initial samples will be pronounced by ASTEELFLASH after checking these parts and associated documents but also after checking the correct integration into the ASTEELFLASH process.

If no particular requirement has been submitted to the supplier, the initial samples will be accompanied, at least:

- A material conformity declaration or a material analysis report (for the specific materials requested in the plan)
- The control report of the manufactured batch (dimensional report, test results ...)
- The component drawing used by the supplier (if different from the plan provided by ASTEELFLASH)
- For hazardous substances and preparations (chemicals, plastics, etc.), an updated copy of the Safety Data Sheet must be provided with the sample.

5.1.1.7 Special/ Key Characteristic

Special characteristics are identified on plans or specifications.

The supplier shall show throughout the project its ability to ensure compliance of these special characteristics. In particular, the supplier is asked to study the variability of the special characteristics by carrying out process performance studies, including inside his own supply chain.



For quantifiable characteristics, the process performance study is performed via a capability measurement that must meet the following requirements:

CmK	Cpk
2	1,67

If these requirements are not fulfilled or if the production volume does not allow the realization of capabilities, this means that the process cannot guarantee the conformity of the characteristic: a control of the characteristic adapted to the variability of the process shall then put into operation by the supplier (this can be up to 100% control). In case of critical characteristic, automatic control or poka-yoke is preferred. Operator control will necessarily be doubled.

5.1.1.8 Configuration Management System

The supplier shall have a configuration management system describing the elements managed in configuration and the principles adopted for their evolution.

	REQUIREMENTS	Ind: 2	9/12	
	Supplier Management Manual	Reference: CRP_09_PRO_009_A		

The supplier shall take into account the documents necessary to fulfill the order with the latest indexes that have been made available by ASTEELFLASH.

The supplier shall manage in configuration the following elements:

- Data provided by ASTEELFLASH: Definition file, industrial specifications, data contractual, etc
- The different elements of the Manufacturing and Control Dossier, if applicable
- All the complementary elements of the Industrial File, if applicable
- Proofs and validation reports
- Documents delivered to ASTEELFLASH

5.1.1.9 Traceability

On ASTEELFLASH' request suppliers shall transmit direct and reverse traceability under 3 working days

Direct traceability is used for finding the different constituent elements of the supplies:

SUPPLIES -> CONSTITUENT -> TRACED ELEMENT

Reverse traceability is used for finding all the constituents and supplies having used a traced element:

TRACED ELEMENT-> CONSTITUENT-> SUPPLIES

For all supplies produced under its responsibility, the supplier shall record the data required to produce a consistent manufacturing batch, the monitoring documents tracing:

- the identification of the as-built configuration
- the phases and/or operations performed in-house or subcontracted, or the certified operators who performed the operations
- any nonconformities and corrective actions implemented
- any acceptance documentation and declarations of conformity
- evidence of process qualification and product/supplier pairs
- any waivers
- any missing Material (not following the normal manufacturing process)
- any documents recording the checks carried out
- the test software configuration
- any process changes (soldering, baking, cleaning, etc.)
- the procurement sources and the date-code or batch number for each source

This record shall be sent together with the supplies (Tracking sheet), if required under the order.



5.1.1.10 Batch Constitution

Each batch corresponds to a homogeneous production unit, i.e., manufactured under the same conditions of production than the validation process. Each production batch must be distinguished during delivery and must have its own documentation.

5.1.1.11 Export control

The supplier shall be aware of and comply with export control and final destination regulations. It shall inform ASTEELFLASH of any restrictions related to its supplies.

The supplier shall identify the materials subject to Export Control constraints, be aware of the situation of each like-unit at all times, protect such materials against loss, theft or unauthorized access.

	REQUIREMENTS	Ind: 2	10/12	
	Supplier Management Manual	Reference: CRP_09_PRO_009_A		

5.1.1.12 Anti-counterfeiting policy

ASTEELFLASH endeavors to ensure that its products comply with the highest possible level of quality and reliability. Consequently, ASTEELFLASH will never use counterfeit components in its products. In this respect, the supplier must:

- establish a process aimed at detecting and reporting counterfeit components, or those suspected of being so, that may appear in its supply chain
- know the origin of all components and materials and ensure their authenticity
- respond to requests for information on the source of any component or material

5.1.1.13 Foreign Object Detection (FOD) policy

The supplier must take steps aimed at avoiding the damage that may be caused by a foreign body or unwanted item.

The Supplier must put in place provisions for the prevention, detection and elimination of foreign objects during manufacturing, assembly, inspection, storage, maintenance, packaging and shipping operations.

5.1.1.14 Perishable or limited shelf-life product

Information must be provided on products or materials likely to degrade over time, during storage or transport. The supplier must state on the label on the packaging the date of original manufacture of the product, the shelf life and the expiration date. All products with a limited shelf life must have 80% or more of their service life remaining at the time of delivery.

5.1.1.15 Obsolescence

The supplier must take all steps to identify the materials, procedures or products which may become obsolete. The supplier must notify the ASTEELFLASH Procurement Department immediately of the obsolescence of a product forming part of the nomenclature of the product to be supplied as soon as it is aware thereof, together with the manufacturer's justification and if possible, suggesting an equivalent reference product.

5.1.2 Supply Chain requirements

5.1.2.1 Purchasing Process



The supplier shall be responsible for the purchasing and procurement control required for the Supplies. ASTEELFLASH and Customer's requirement must be forwarded and applied to the supplier's supply chain. The supplier shall comply with the selection of validated manufacturers and/or vendors defined by ASTEELFLASH. If no supplier or vendor is imposed, the selection shall be the supplier's responsibility. The supplier shall keep ASTEELFLASH informed of any market tensions or any intermittent problems encountered by authorized manufacturers or vendors.

The supplier shall ask for the ASTEELFLASH explicit consent to purchase Materials from brokers - which are intermediate agencies whose primary activity is to find stocks of components outside the normal supply channels (original equipment manufacturers or authorized distributors)

The supplier shall identify any of its own suppliers which may be subject to performance monitoring and tracking. When deviations occur, corrective actions shall be implemented.

5.1.2.2 Purchasing Information

The supplier shall flow down to its own suppliers the requirements stated in this document and customers specific requirements, when they are applicable to them.

	REQUIREMENTS	Ind: 2	11/12	
	Supplier Management Manual	Reference: CRP_09_PRO_009_A		

5.1.2.3 Verification of Purchased Product

The supplier is responsible for tailoring the materials receiving inspection according to the requirements for products and materials.

The receiving inspection shall be carried out on a 100% or sampling basis. When performed through sampling, the receiving inspection shall adhere to statistical rules laid down in the ISO 2859-1 standard or equivalent (ex: ANSI/ASQ Z1.4).

For AS/EN/JIS 9100 material / product, raw material measurements or analysis shall be carried out by sampling to check the test reports associated with material declaration of conformity.

5.1.2.4 Storage, handling and packaging

The supplier must ensure that the component/products are protected against any cause of damage whatsoever during all work commissioned from him.

The supplier must:

- Pack only one reference per carton
- Use appropriate handling equipment
- Use appropriate and safe packaging (The weight and volume of the packages allow handling and storage without the aid of special means if the unit mass is less than 15 kg) and pay particular attention to the cleanliness of the packaging in order not to supply items in poor condition
- Use specific means to conserve products requiring particular storage conditions (e.g.: temperature, humidity, etc.)
- The particular storage conditions shall be clearly informed on the packaging
- Use dry pack for moisture sensitive electronic components according to IPC/JEDEC J-STD-033
- The suppliers of products sensitive to electrostatic discharges must ensure that the product is protected during the process of manufacture, identification and packaging for delivery, according to IEC 61340-5-1, IEC 61340-5-2, IEC 61340-5-3
- As far as possible, the supplier must dedicate storage areas to ASTEELFLASH's raw materials, components and products
- Use UN packing, certified labels, dangerous goods declaration and certified personnel for all goods defined as "dangerous" by the United Nation (such as lithium batteries, solder paste, top coat resin, solder flux, solvents, washing chemicals...)

5.1.2.5 Delivery

Each package must be identified by a label visible from the outside with, at least, the following information:



- Item Reference and if possible MPN: Manufacturer part number
- Quantity per carton
- Lot number and / or date code

The following information are not mandatory but Asteelflash recommends as complementary information:

- Article description according to the order description
- Order number
- Shipping date
- Number of the delivery note

Each pallet must be identified by a pallet sheet with, at least, the following information printed in clear:

- Item(s) Reference(s), and if possible MPN: Manufacturer part number
- Quantity per reference on the pallet
- Lot number and / or date code

	REQUIREMENTS	Ind: 2	12/12	
	Supplier Management Manual	Reference: CRP_09_PRO_009_A		

The following information are not mandatory but Asteelflash recommends as complementary information:

- Article description according to the order description
- Order number
- Shipping date
- Number of the delivery note

Pallet must be securely wrap and stable with the weight duly distributed for safe handling.

The delivery must also be accompanied by the following documents:

- A delivery note reminding:
 - Vendor's name and address
 - The order Number
 - The delivered quantity
 - The part number (ASTEELFLASH part number preferred)
 - The modification index/version
 - The part designation
- A certificate of conformity in accordance with ISO 17050-1; ISO 17050-2 or specific requirement
- Certificate of origin (COO) if applicable
- Harmonized System (HS) code for export process if applicable