
Avibras Suppliers Requirements Manual



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Revision 02



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Chapter 1

Objective

This Supplier Requirements Manual describes the policies and guidelines established by Avibras.

Its objective is to provide the Supplier with information about the development of new and/or changed products with a high standard of quality. It also describes how the control of harmful substances is monitored. This is accomplished through the application of the methodologies established by Avibras. These methodologies allow:

- Identification and development of Suppliers;
- Continuous improvement of products and post-sales assistance;
- Continuous technological evolution;
- Control of harmful substances with continuous monitoring by Quality Assurance personnel to ensure safe acceptance of incoming products at Avibras;
- Continuous improvement of productivity and elimination of waste, resulting in cost reduction;
- Use of materials and processes with minimal impact on the environment, in accordance with the laws in force;
- Social Responsibility.

This Manual gives the Supplier a general understanding of how Avibras selects, develops and monitors its service providers. It is the Supplier's responsibility to share it with its subcontractors.

Chapter 2

Supplier's Responsibilities

It is the Supplier's responsibility:

- To provide products as shown in drawings and as described in specifications;
- To reduce waste rates (internal and external) and re-work rates (internal and external);
- To use suitable packaging to ensure integrity of the products delivered at Avibras;
- To deliver products as established by Avibras in the schedules and purchase orders;
- To identify delivered products with correct identification labels containing all information necessary to ensure traceability;
- To provide Avibras Management System with updated information and updated certificates issued by certification organizations.
- To inform Avibras, in a timely manner, about unexpected changes to the production processes and/or products. This will prevent possible negative impacts on the reliability and performance of in-production products at Avibras and/or at its customer's facilities;
- To obtain prior approval of Avibras by means of a Deviation Request (SD) to make intentional changes to design, process and/or raw material;
- To accompany audit personnel and give them adequate support during the quality audits mutually programmed and executed by Avibras or other company appointed by Avibras;
- To develop and implement correction and preventive action plans to eliminate the cause(s) of non-conformity or delay in the delivery of the products purchased by Avibras;
- To provide technical and efficient assistance whenever requested.
- To meet all current government requirements related to the environment, occupational health, social responsibility, use of hazardous materials, electric and electromagnetic equipment, patents and similar documentation. Supplier must also comply with the laws enforced in the country where the products are manufactured or sold. Supplier will be subject to a possible lawsuit if the government requirements are not complied with. In addition, Supplier must meet all specific requirements established by Avibras, when applicable.

Note: Delivery of samples and quotations by the Supplier to Avibras implies in full compliance with and full commitment to the requirements described in this manual.

Chapter 3

Quality Policy

Supplier must comply with the following quality policies established by Avibras:

- Ensure Customer satisfaction by meeting the Customer's requirements and those of the Regulatory Agencies;
- Support the growth of the company by continuously improving its processes and technological solutions;
- Empower and train employees to reach the goals of the organization in a safe environment;
- Develop partnership with external Suppliers;
- Continuously improve the Quality Management System.

Chapter 4

Avibras Guidelines

4.1. Mission

Avibras has set itself the mission of developing its own innovative and sustainable technology in the fields of aeronautics, airspace, electronics, vehicle manufacture, and defense with the purpose of generating value for its customers, shareholders, employees and society.

4.2. Vision

Avibras aims to be a benchmark in Brazil by developing its own technology and providing unique solutions to its customers both domestically and internationally.

4.3. Values

The company practices, develops and perfects its culture through solid and well-defined rules and procedures. All business must rigorously follow the principles of transparency, ethics, and fair market competition, taking into account the needs of society today and in the future.

As an exporter, Avibras complies with the laws, rules and regulations of the countries where it conducts its business.

Avibras continuously improves its corporate governance, Code of Ethics, audit processes, and employee instructions.

Chapter 4

Avibras Guidelines

4.4. Code of Ethics

Our Code of Ethics must be followed by Suppliers and service providers within and outside of Avibras to ensure candor in business conduct. It contains general rules of ethical behavior for interaction with the internal and external public, and must be followed by all employees, regardless of hierarchical level.

The Code of Ethics applies to shareholders, senior management, partners, Suppliers, and service providers. Avibras expects everyone to understand and respect its corporate values in performing their professional duties.

4.4.1. Relationship with Suppliers and Service Providers

Avibras regards Suppliers and service providers as members of the company, building a long-term relationship with them.

Avibras expects Suppliers and service providers to accept its cultural values and follow its ethical principles and good business practices.

To prevent corruption and fraud, Avibras verifies the integrity of Suppliers, service providers, and third parties during the bidding process before awarding them a contract. No favoritism is permitted. After they have been contracted, Suppliers, service providers, and third parties are supervised to ensure integrity.

All contracts have anti-corruption clauses to avoid misconduct in business practices. All Suppliers, service providers, and third parties must abide by our Code of Ethics.

Avibras does not conduct business with those who do not adopt a zero-tolerance policy against corruption.

Service providers shall be responsible for their employees and provide them with instructions on our Code of Ethics in order to prevent any professional misconduct.

Service providers working within the company must know and comply with the Safety and Health Standards established by Avibras. These standards apply equally to service providers and Avibras employees.

Avibras expects commitment on the part of the Supplier in

Chapter 4

Diretrizes da Avibras

providing high-quality service and products. Supplier must create and maintain a healthy and safe workplace for all employees, and contribute towards the preservation of the environment.

Avibras may terminate a business relationship with a Supplier if the Supplier disregards legal matters concerning health and safety in the workplace, or if the Supplier is not committed to protecting the environment.

Avibras and its workers are responsible for the confidentiality of information provided by Suppliers and Customers.

4.4.2. Ethics Channel

Avibras has an exclusive communication channel for reporting corruption, bribery, fraud, illegal or unethical behavior, misuse of the company's assets, industrial practices that have harmful impacts on the environment, and discrimination (gender, racial, social, religious, or other).

The Ethics Channel ensures confidentiality of the information provided and keeps the identity of the people involved unknown.

Reports must be delivered through the channels below, either anonymously or not:

www.canaldeetica.com.br/avibras

Phone: 0800 741 0001

Chapter 5

Supplier Prerequisites

Supplier must fully understand the requirements established by Avibras so that both can meet or exceed the customer's expectations and anticipate the needs of the final customer.

If there are any requirements in this Manual that do not apply to a specific Supplier, the requirements must be agreed upon between the Supplier and the following departments of Avibras: Supply Chain, Supplier Quality Assurance and Engineering.

Avibras considers the following requirements as fundamental for the Supplier:

5.1. Information Security Control and Confidentiality

Depending on the level of relevance of the information exchanged between Avibras and Supplier, Avibras will request the Supplier to sign a Confidentiality Agreement.

5.2. Economic and Financial Management

Avibras requires the Supplier to present, whenever requested, all necessary documents that prove its compliance with legal obligations.

5.3. Commercial Service

Avibras requires the Supplier to be flexible enough when rescheduling product deliveries, meeting deadlines, and delivering the required quantity of products. Supplier must also offer competitive prices, whenever requested by the Supply Chain department.

5.4. Environment

Avibras requires the Supplier to actively participate in the protection, preservation and, whenever necessary, in the eradication of practices harmful to the Environment. Supplier must assume responsibility for possible negative environmental impacts related directly or indirectly to its productive processes. Supplier personnel engaged in sustainable development must be aligned with Avibras. Therefore, Supplier must develop environment-friendly policies, processes, rules, and practices for their workers and those of their subcontractors.

5.5. Health and Safety

Avibras requires that the Supplier follow the Legislation, Agreements, and Collective Labor Conventions, adhering to the health and safety standards applicable to its activities.

5.6. Social Responsibility

To be consistent with the practices established by Avibras, Supplier shall conduct its business in a manner that will benefit customers and contribute to the welfare of society and the environment.

5.7. Controlled Product

With regard to controlled products, Supplier must obtain an inspection registration from the Brazilian Army, the Federal Police, and the Civil Police. Supplier shall present

Chapter 5

Supplier Prerequisites

documentation that attests authorization provided by inspection agencies to ensure legal security in commercial relations.

For further information, contact Avibras Controlled Product Department.

5.8. Export Control

Avibras complies with international export control regulations and practices. Therefore, Supplier shall inform Avibras, in due time, about any restrictions to ensure proper treatment of controlled products and sensitive technology. This is to ensure that such products and technologies are not available to unauthorized organizations. Avibras guarantees that the use and destination of its products and technologies are in accordance with legal requirements.

Chapter 6

Supplier Development

Supplier employees will be trained to make sure they perform in accordance with the requirements established by Avibras. Supplier employees will be trained by Avibras representatives from the Quality, Engineering, and Supply Chain areas. Training will be conducted at the Supplier's facilities.

6.1. Qualification and Revalidation Audits

Avibras auditors may visit the Supplier's facilities to audit the Supplier's management system and processes based on the requirements applicable to the products that will be supplied to Avibras. Supplier will be informed prior to the auditor's visit.

Supplier must provide the resources necessary for the execution of the audits.

Supplier shall be evaluated according to the requirements established in the Technical Evaluation Report (RATEF), as follows:

- a) Quality Management System Audit – Quality area;
- b) Organizational Evaluation – Supply Chain, Financial and Export Control areas;
- c) Technical Capacity – Process Engineering for sub-contracted items and Product Engineering for commercial items;
- d) Other, when required.

When necessary, Avibras Quality auditors will reevaluate the Supplier's processes every three (3) years, during such time as the agreement is in force. Depending on the audit results, Avibras Quality auditors may anticipate the reevaluation and take the following actions:

- a) Keep the Supplier active;
- b) Deactivate the Supplier;
- c) Make an on-site requalification audit;
- d) Request an improvement action plan regarding the performance of the Quality Index;
- e) Renew current agreement or issue a new agreement;
- f) Make other decisions, according to Avibras Quality Committee analysis.

Note 1: Avibras may designate an audit consulting firm to qualify and requalify Suppliers.

Note 2: Suppliers that have Quality Management System certification must send a copy of the certificate whenever an update is necessary.

Chapter 6

Supplier Development

6.2. Supplier Classification

The Supplier qualification index is attributed as follows:

Index	Supplier Status
Above or equal to 70%	Approved
Below 70 %	Rejected

Suppliers that reach an index below 70%: will be classified as "Rejected". Avibras Quality Committee will decide whether to hold the Supplier position in Avibras Suppliers Chain and can request an Action Plan for the adequacy, improvement or mitigation of risks with a maximum period of sixty days (60) to conclude the plan implementation, considering the evaluation date, with the possibility of a Follow-up Audit. After this period, the Committee evaluates the result of the Action Plan and if the Supplier does not reach the minimum index (equal to or above 70%), he will be blocked from Avibras Suppliers List for productive items.

Suppliers that reach an index above or equal to 70%: will be classified as "Approved". Avibras will evaluate if an Action Plan is necessary and the Supplier has a maximum period of ninety days (90) to conclude the plan implementation, considering the date of the evaluation aiming at continuous improvement. If Avibras considers the Action Plan unnecessary, this decision is justified in the RATEF.

The Supplier is responsible for promoting continuous improvement of its management system and processes to comply with Avibras established requirements.

6.3. Supplier Deactivation

The Supplier that often shows quality deviation or delivery delays as described in item 17 of this Manual, that does not show interest or capacity to promote changes and improvements, does not show an acceptable performance of qualification and process audits, and does not possess a trustable guarantee system, will be subject to the Management Consequences applied by Avibras. These consequences can be as follows:

- Reduction or loss of item participation;
- Complete Supplier disqualification – the disqualification can be an initiative of Avibras or the Supplier. In these cases, deadlines must be agreed between all parts in order to cover all interests and necessities of both companies

Chapter 7

Avibras Documentation

Requisites

Avibras specifies the materials requirements through Drawings, Purchase Specifications, Parts List and other information attached to the purchase order. Additional or necessary information must be requested to the Supply Chain.

This documentation consists of:

- **Drawing** – Dimensional information, parts lists, raw materials list, etc.
- **Purchase Specification (EC)** – Specification with the requirements for the supplied part. All codes provided by Avibras are related to one EC, which the Supplier must have in order to access all requirements necessary for supply. Avibras drawings contain parts lists with raw material codes, superficial treatments, etc. These codes have an applicable EC, which the Supplier will also need in order to deliver the final part to Avibras.
- **Parts List** – Product structure, with Avibras' codes list that comprises the delivered final product. This list contains the following information: description of Avibras code, characteristics of the code and - when applicable - Part Number (PN) and Supplier (for components purchased in the market to compose the final product supplied), quantity, EC of each code, etc.

7.1. Operational Risks Management

The Supplier must plan, implement and control a process to manage the operational risks to fulfil the requirements applicable to the products and services, in accordance with, but not only, the list below:

- Attribution of responsibilities to the Operational Risk Management;
- Definition of criteria for risk assessment (probability, consequences, risk acceptance, etc.);
- Identification, assessment and communication of risks in all operations;
- Identification, implementation and management of actions to minimize the risks that surpass the acceptance criteria defined;
- Acceptance of remaining risks after the minimization;
- Submission of the information, through the Supply Chain, to Avibras.

Chapter 7

Avibras Documentation

Requisites

7.2. Critical Analysis of Requisites related to Products and Services

The Supplier must ensure its capability of meeting the requirements to supply products and services to Avibras, and must conduct a critical analysis before agreeing to supply products and services. The requisites are:

- Those specified by Avibras, including requisites related to activities before and after deliveries;
- Those not declared by Avibras, but identified as necessary for specific or intended use, when necessary;
- Specified requisites (normative);
- Statutory and regulatory requisites applicable to products and services;
- Contractual requisites or different requests from those defined previously.

The critical analysis must be coordinated with the applicable functions of the organization.

If after the critical analysis the Supplier determines that some of Avibras requirements cannot be fulfilled or can only be partially fulfilled, the Supplier must inform Avibras through the Supply Chain department and require a formal acceptance.

The Supplier must ensure that contractual requirements or different requests from those previously established are resolved.

7.3. Avibras Property

The Supplier must be able to identify, verify, protect and preserve Avibras property provided for the use in products or services.

When Avibras property is lost, damaged, worn or considered improper for use (affecting or not the Product Warranty), the Supplier must report it to Avibras Supply Chain and compensate the company, if applicable.

Note: Avibras property can include raw material, components, tools, devices, equipment, installation, intellectual property, information, and others considered relevant.

Avibras Documentation

Requisites


7.4. Critical Items and Key Characteristics

Critical items, key characteristics specified on the drawing and technical descriptive must be properly managed during the process and delivery, ensuring the safety of items, performance, shape, function, productivity, and shelf life.

7.4.1. Critical Items

Critical items (functions, parts, software, characteristics, processes, etc.) that have a significant effect on:


- Supply and use of products and/or services;
- Security, performance, shape, adjustment, function, productivity, and shelf life;
- Require specific actions to guarantee proper management.

Critical items are identified with the symbol  next to the part description on the drawing.

If the drawing has key characteristics, the symbol is filled with the number that represents the quantity of key characteristics on the drawing.

7.4.2. Key Characteristics

Attribute or resource which variation has a significant effect on the product adjustment, shape, function, performance, shelf life or productivity, that demands specific actions in order to control variation.

If an Avibras' drawing has a key characteristic, it will be identified by the symbol: .

Chapter 8

Deviation Request - SD

The Deviation Request (SD) must be used in case the Supplier detects non-compliant characteristics during the manufacturing process and choose a deviation request. Then, he must register the non-conformity in the Deviation Request Report - SD to allow a technical analysis by Avibras.

The Supplier must ensure that the information that guarantees the traceability of the product are in the Deviation Request Report - SD.

The Deviation Request Report – SD available in this manual must be submitted by the Supplier to the Suppliers Quality Management area through the e-mail address **certificados@avibras.com.br**.

Avibras Engineering analyzes the Deviation Request – SD together with the necessary areas, fill in the fields of the report exclusive for Avibras, informs the status of the Deviation Request – SD (approved or rejected) and send it to Suppliers Qualification Management area.

The Suppliers Quality Management area signs the report, updates the status and sends the report back to the Supplier.

- If approved, The Suppliers Quality Management registers the Deviation Request – SD in the corporate system.
- If rejected, the Supplier receives the report informing that the material was not accepted in the described conditions.
- All parts sent to Avibras with a SD must have their corresponding Conformity Certificate ensuring that the part was approved through a deviation and the SD confirmation number.

The Suppliers Quality Management waits for the Supplier to send the material, inspects and registers the non-compliance regarding the Deviation Request – SD.

The approved Deviation Request – SD originated in the Supplier does not exclude him of non-conformity treatment and causes a decrease in his Quality Index.

Chapter 9

PPAP Submission and Samples Approval

This process consists in the submission, by the Supplier, of all documentation requested by Avibras in order to provide the required item or service.

9.1. Homologation Kick-off

The Supplier Development and Qualification area, together with a multidisciplinary team formed by the Supply Chain, Process and Product Engineering, Quality and other areas of the company, carry out the first kick-off meeting with the Supplier in order to discuss the requirements and define the PPAP level of submission.

9.1.1. Homologation Process Planning

After identifying the PPAP level of submission, the Supplier must develop a homologation plan together with Avibras.

PPAP Item	PPAP Requirements	Avibras Documents / Necessary Evidence
1	Project records	Avibras Drawing / Purchase Specification (EC). The compliance with this document must be shown through evidences, with drawings and ECs.
2	Documents alterations authorized by Engineering	Document of Engineering Alteration Authorized / SD – Deviation Requirement approved.
3	Customer Engineering Approval	If applicable, when the Project is responsibility of the Supplier, the drawings must be approved by Avibras Engineering.
4	DFMEA	If applicable, when the Project is responsibility of the Supplier, the Project FMEA must be applied to guarantee that the risks were identified and minimized.
5	Process Flux Diagram	The Process Flux Diagram must show the process used to manufacture the part. The diagram must be presented graphically with the forms suggested by Avibras or with another adopted by the Supplier.

PPAP Item	PPAP Requirements	Avibras Documents / Necessary Evidence
6	PFMEA	The PFMEA of the process must be applied in accordance with the process that was demonstrated on the Process Flux Diagram and the Supplier must highlight that the risks were identified and minimized.
7	Control Plan	The Control Plan must be based on the characteristics of the Project, PFMEA, Process Flux Diagram, etc. The Control Plan must show the compliance with these requirements identified, mostly the key characteristics, in the project or process.
8	Measurement System Analysis (MSA)	The measurement instruments used must be calibrated and must go under MAS studies, especially if used for verification of critical characteristics.
9	Dimensional Results	The Dimensional Results must be presented through reports, showing that all characteristics of the project were fulfilled with the drawing and ECs verified in the records of the Project.
10	Material Records / Performance Test	The records of the raw materials used in the manufacture of the parts must be demonstrated through the results of mechanical and chemical tests, and through a conformity certificate. For parts that are specified in drawings, EC or other forms of technical specifications in which a performance or test of acceptance is required, the requirement must be demonstrated in a specific report.
11	Process Initial Studies	Studies related to the capability or performance of the process (statistics control: Cpk, Ppk). Must be applicable to all special characteristics or key characteristics.
12	Qualified Laboratory Documentation	Documentation of the Selected Laboratories: Welding Tests, Tridimensional Measurement.
13	Appearance Approval Report (AAR)	When referring to an item with visual requirements, this approval must be confirmed through a technical report issued by the Supplier and approved by Avibras.
14	Production Parts Sample	The Supplier must supply the product samples in accordance with Avibras requirements.
15	Standard Sample	The Supplier must keep a standard sample for an identical period to the records of approval of the production parts.
16	Verification Support	If required by Avibras, the Supplier must submit with the PPAP any tool used to support the inspection or manufacture of the item.
17	Customer Specific Requirements	The Supplier must provide evidence of all other requirements determined by Avibras during the development of the part with the Supplier.
18	Part Submission Certificate (PSW)	With the conclusion of all requirements of the PPAP, the Supplier must fill in the Part Submission Certificate and send to Avibras. An individual certificate must be filled for each part number of Avibras, unless a different agreement was made with Avibras representative.

Table 01 – PPAP Requirements

Chapter 9

PPAP Submission and Samples Approval

9.2. PPAP Application

The Supplier applies the PPAP requirements based on (but not limited to) the “PPAP Items Application Matrix” guidelines (see Table below) and PPAP Application Form provided by Avibras when requested by the Supplier.

9.2.1. Correlation for PPAP items application in accordance with the supply families

The equivalent documents of Avibras and the evidence for each PPAP item are described in the table below.

The PPAP must be applied to each part in development in accordance with the requirements of the table below marked with an “X”, for each PPAP item.

PPAP Item	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
PPAP Requirements																		
Parts Supply Family	Project records	Documents alterations authorized by Engineering	Customer Engineering Approval	DFMEA	Process Flux Diagram	PFMEA	Control Plan	Measurement System Analysis (MSA)	Dimensional Results	Material Records / Performance Test	Process Initial Studies	Qualified Laboratory Documentation	Appearance Approval Report (AAR)	Production Parts Sample	Standard Sample	Verification Support	Customer Specific Requirements	Part Submission Certificate (PSW)
• Seats • Glasses	X	X	X	X	X	X	X	X	X	X	N/A	N/A	N/A	X	N/A	X	X	X
• Harness HF • Harness LF	X	X	N/A	C	X	X	X	N/A	X	X	N/A	N/A	X	X	N/A	X	X	X
• Boilerwork Rack and Simulator • Light Boilerwork • Medium Boilerwork	X	X	N/A	N/A	X	X	X	X	X	X	N/A	N/A	N/A	X	N/A	X	X	X

PPAP Item	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	
PPAP Requirements																			
Parts Supply Family	Project records	Documents alterations authorized by Engineering	Customer Engineering Approval	DFMEA	Process Flux Diagram	PFMEA	Control Plan	Measurement System Analysis (MSA)	Dimensional Results	Material Records / Performance Test	Process Initial Studies	Qualified Laboratory Documentation	Appearance Approval Report (AAR)	Production Parts Sample	Standard Sample	Verification Support	Customer Specific Requirements	Part Submission Certificate (PSW)	
Hydraulic Components	X	X	X	X	X	X	X	X	X	X	N/A	N/A	N/A	X	N/A	N/A	X	X	
Armored Plate Cut	X	X	N/A	N/A	X	X	X	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	X	X	
Elastomer / Sealing	X	X	N/A	N/A	X	X	X	X	X	X	X	X	N/A	X	N/A	N/A	X	X	
<ul style="list-style-type: none"> • Packages • Laboratory Tests • Raw material • Hardware / Software / Firmware • Pyrotechnic • Chemicals • Attachment elements • Electronics (PN) • Mechanics (PN) 	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<ul style="list-style-type: none"> • Mechanical Equipment Drawing • Stamping • Forging • Foundry • Springs • Micro-foundry • Composite Material 	X	X	X	N/A	X	X	X	X	X	X	N/A	N/A	N/A	X	N/A	X	X	X	
<ul style="list-style-type: none"> • Plast. Injection Drawing Avibras • Tarpaulin - Tapestry 	X	X	N/A	N/A	X	X	X	X	X	X	X	N/A	X	X	N/A	N/A	X	X	
Electronics Drawing	X	X	N/A	N/A	X	X	X	N/A	N/A	X	N/A	N/A	X	X	N/A	N/A	X	X	

PPAP Item	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	
PPAP Requirements																			
Parts Supply Family	Project records	Documents alterations authorized by Engineering	Customer Engineering Approval	DFMEA	Process Flux Diagram	PFMEA	Control Plan	Measurement System Analysis (MSA)	Dimensional Results	Material Records / Performance Test	Process Initial Studies	Qualified Laboratory Documentation	Appearance Approval Report (AAP)	Production Parts Sample	Standard Sample	Verification Support	Customer Specific Requirements	Part Submission Certificate (PSW)	
Printed Circuit Board	X	X	N/A	N/A	X	X	X	X	X	X	N/A	N/A	N/A	X	N/A	N/A	X	X	
Lining	X	X	X	X	X	X	X	X	X	X	N/A	N/A	X	X	N/A	N/A	X	X	
Special Systems	X	X	X	X	X	X	X	X	X	X	N/A	N/A	N/A	X	N/A	N/A	X	X	
• Superficial treatment • Thermal treatment	X	X	N/A	N/A	X	X	X	X	X	X	N/A	X	N/A	X	N/A	N/A	X	X	
Tubing and hoses	X	X	N/A	N/A	X	X	X	X	X	X	N/A	N/A	N/A	X	N/A	X	X	X	
High demand machining	X	X	N/A	N/A	X	X	X	X	X	X	X	N/A	N/A	X	N/A	X	X	X	
• Machining CNC • Machining CNC Complex • Conventional Machining	X	X	N/A	N/A	X	X	X	X	X	X	N/A	N/A	N/A	X	N/A	N/A	X	X	

Table 02 – Correlation – “PPAP Items Application Matrix”

If necessary, Avibras can require some of the Supplier’s items for the families in the table above, which do not require the PPAP.

Chapter 9

PPAP Submission and Samples Approval

9.3. Manufacture Monitoring and Sample Approval

Avibras Process Engineering is responsible for monitoring the Supplier's PPAP scheduled activities through technical visits, orientation regarding the sample/package labeling, and PPAP documentation submission in accordance with the agreements of planning phase.

9.3.1. Identification Label of PPAP Submission Sample

The samples sent for submission must be identified with labels containing the following information:

- Supplier logo;
- Part Number;
- Avibras Code;
- Item description;
- Drawing number/revision;
- Sample quantity;
- Name of the Supplier;
- Purchase Order number;
- Item of the Purchase Order (PC Line);
- Invoice number;
- Date of dispatch;
- Avibras Information;
- Extension line.

Below, an example of identification label:

Logo do Fornecedor

Amostra de peças para aprovação PPAP

Part Number: _____	Código Avibras: _____
Descrição do Item: _____	Revisão do Desenho: _____
Quantidade: _____	Fornecedor: _____
Pedido de Compra (PC): _____	Item do PC: _____
Nota Fiscal: _____	Data do Envio: _____
Contato Avibras: _____	Ramal: _____

Chapter 9

PPAP Submission and Samples Approval

9.4. Sample Inspection

After the manufacture of the homologation sample and the documentation is finished, the quality inspection is done as approved in the PPAP schedule. The inspection can take place at the Supplier's facility or at Avibras.

9.5. Final Verification of Documentation

After monitoring the manufacture, the assessment of the sample homologation process must confirm that all requirements established in the PPAP were fulfilled in all control points, including Avibras receipt inspection. The Supplier will be eligible to begin the regular supply of batches to Avibras.

9.6. PPAP Approval

Rejected PPAP: If the "Part Submission Warranty (PSW)" is rejected, the Suppliers Development and Qualification area informs the Supplier and requests a review of the documentation.

Approved PPAP: When approved by the applicable areas, the Supplier Quality and Development area confirms the data book and forwards a copy of the "Part Submission Warranty (PSW)", properly signed, to the Supplier, authorizing the supply of the batches.

9.4.1. Inspection at the Supplier's facility

Rejected item: If a non-conformity is detected in the inspected item at the Supplier's facility, the Supplier must treat the non-conformity.

Approved item: The Supplier continues with the regular delivery of the item to Avibras.

9.4.2. Inspection at Avibras

In case of inspection at Avibras, the item will be treated as specified in item 13.2. of this manual.

Chapter 10

Material Identification

The batches provided by Avibras must be identified with appropriate label in order to facilitate traceability; it must contain the following information:

- Avibras code and Supplier code;
- Batch number;
- Quantity;
- Item Description;
- Invoice number;
- Other information requested in the applicable Purchase Specification (EC).

Besides the mandatory information, the invoice must contain:

- Number of the Purchase Order and Purchase Item;
- Avibras and Supplier Code.

Chapter 11

Packaging

The package project for products/parts sent to Avibras is responsibility of the Supplier, unless agreed otherwise between the parts.

Avibras must previously approve the packaging in order to verify the total conformity with the Avibras process regarding transportation, handling and raw material storage, ensuring the perfect integrity of the parts.

The Supplier must send all products packages properly identified in accordance with the specifications described above regarding labels information.

Any alteration can only be made with Avibras endorsement.

Chapter 12

Counterfeit Parts Control

An unauthorized copy, imitation, substitute or modified part (material, part or component), which is knowingly misrepresented as a specified genuine part of an original or authorized manufacturer.

Examples of counterfeit parts can include, but are not limited to, the false marking or labeling identification, grade, serial number, date code, documentation, or performance characteristics.

Note: If any of these situations occur, the Supplier will be unable to supply to Avibras through the Corporative System Block.

Chapter 13

Receipt Inspection

13.1. Documentation Admission

In case of products supplied with discrepancy related to missing/rejection of documents, they will be considered not delivered.

It is mandatory to forward all documents requested in the Purchase Specification (EC) and Purchase Order to the following e-mail address before the delivery of the product: **certificados@avibras.com.br**.

If non-compliant documentation is detected during delivery, the invoice will be immediately rejected and the product will be returned through the same means of transportation.

If non-conformities related to documentation are detected after the delivery, the Supplier will be informed and will have a period of twenty-four (24) hours to solve the problem; otherwise, it will result in payment impacts.

13.2. Receipt Inspection

The supplied batches can be submitted to a receipt inspection regime in 100% of batches or made by sampling, following the requirements specified in the Purchase Specifications (EC), Drawings or Technical Scope, which will be verified. The managing of approval/rejection of the controlled batches is executed for every quality characteristics, seeking the "Zero Defect" philosophy for all components used.

Avibras can audit the Supplier through a designated audit company aiming at analyzing the documentation and verifying the processes and approval of batches in order to validate the delivery of the material.

Chapter 13

Recebimento de Material

13.3. External Product Approval

The approval requirement for National items must be informed prior to seventy-two (72) hours via e-mail to Avibras Supply Chain.

International items approval must be agreed between Avibras Supply Chain area and the Supplier, when necessary. Avibras will inform if the batch will be analyzed at the Supplier's facility or internally.

The batch must meet all technical/quality requirements of the drawing and Purchase Specification (EC).

The batch must contain all traceability information, as follows:

- Raw material Certificate;
- Test Report (mechanical, chemical and electronic).
- Dimensional Report;
- Other applicable Reports and Certificates.

All volumes must be dispatched with the following identification labels:

COMPANY LOGO		
Purchase Order: 000000 Item:		Purchase Specification (EC) or Drawing/Rev.:
Description:		
Avibras code:		
DANFE:	Quantity:	Unit:
Certificate N°/ Report:		
Batch:	Manufacture Date:	Exp. date:

Chapter 14

Non-conformity Treatment

When materials that do not comply with the specifications and application are submitted to Avibras, the treatment will be as follows:

- A Non-Conformity Report (RNC) will be opened for the treatment of the anomaly and it will be sent to the Supplier;
- The RNC with the immediate actions (contingency/correction) must be executed and sent to Avibras through the e-mail certificados@avibras.com.br, within forty-eight hours (48). The cause analysis, corrective actions and efficacy verification must be sent up to ten (10) working days through the RNC Report, respecting the use of the tools for analysis in the report;
- When necessary, the Supplier must send to Avibras a qualified representative for the solution of the problem;
- When necessary, the Supplier must allow the presence of an Avibras representative in the company site or of its subcontractor site, to participate in the investigation process and solution of the anomaly;
- When the return of materials is necessary, Avibras is authorized to return the material with anomaly using the Non-Conformity Report (RNC) if the Return Authorization is not available;
- It is up to Avibras, after the applicable analysis, to transfer the costs related to the Non-Conformity to the Supplier.

Chapter 15

Contingency Plan

The Suppliers must develop contingency plans for potential problems that can interrupt Avibras product flow.

These plans must be available and Avibras must be informed whenever a potential problem occurs.

In case of events that interrupt the product flow, and if Avibras deems necessary, the Suppliers must authorize the access to tooling that belongs to Avibras.

Chapter 16

Retention period of the Documented Information

The Supplier must archive all documents required by the Management System (approval of production parts, tool registration, purchase orders, quality performance records, and others).

These records must be legible, promptly identified and able to recover within a minimum period of fifteen (15) years after the end of the serial production, and must be available for consultation whenever requested by Avibras.

In case of components that require an extended retention period, the condition will be defined in the component specification.

These requirements do not replace governmental requisites.

Chapter 17

Suppliers Performance Monitoring

For Suppliers of Productive items, which had items inspected, the monitoring is done monthly by the Quality area through Quality Indexes (IQL) and the Supply Chain area through Punctuality Indexes (IP).

17.1. Measurement Method

Measurement of the Item Quality Index (IQI) and Report Table x Report Grade

The item delivered by the Supplier is evaluated every delivery through the Inspection Report and is measured as follows:

$$I.Q.I = \left(\frac{\text{Sum of Item Reports Grade in the Month}}{\text{Quantity of item Batches in the month}} \right)$$

Description of the Report	Grade
Approved	1
Approved with Deviation (Supplier)	0,75
Approved with Deviation (Avibras)	1
Rework 1 (Supplier)	0,5
Rework 2 (Avibras)	1
Scrap 1 (Supplier)	0
Scrap 2 (Avibras)	1
Return	0

Chapter 17

Suppliers Performance Monitoring

Quality Index Measurement (IQL)

The Quality Index is obtained through the registration of the discrepancies identified during the receipt inspection (Figure 01).

$$\text{I.Q.L} = \left(\frac{\text{Sum of Supplier's Report Grade in the Month}}{\text{Quantity of Supplier's Batches in the month}} \right) \times 100\%$$

Punctuality Index Measurement (IP)

The Punctuality Index (IP) is obtained through the appointments of the entries of the products sent by the Supplier through their invoice, with an acceptable delivery tolerance for delay or anticipation of five (5) days (Figure 02).

$$\text{IP} = \left\{ 1 - \left(\frac{\text{Number of Entries after the deadline}}{\text{Total number of entries}} \right) \times 100 \right\}$$




Chapter 17

Suppliers Performance Monitoring

17.2. Quality Indexes (IQL) and Punctuality Indexes (IP) Treatment

The Suppliers that affect Avibras' Quality Indexes (IQL) and Punctuality Indexes (IP) are often analyzed regarding the necessity of an improvement plan.

The status of the Supplier development is attributed as follows:

	Above 95%	Great results! Keep improving!
	Between 70% and 95%	Attention! Assess your results and put in practice improvement actions!
	Below 70%	Attention! Assess your results and immediately put in practice improvement actions!

When applicable, the opening of an action plan to deal with persistent problems can be requested to the Supplier or issued by Avibras.

17.3. Key Performance Indicators (KPI)

The Key Performance Indicators are provided by the Supply Chain area to the Suppliers for assessment and verification of the data.

The level of satisfaction as well as the results of the Supplier are presented in the KPI so that the Supplier can analyze and implement improvements regarding the results shown.

If the Supplier notice any discrepancy in the KPIs, he must request a correction to the Supply Chain.

When applicable, the actions sent by the Supplier are analyzed and its effectiveness is verified by the Supplier Quality Management area.

Chapter 18

Continuous Improvement

Avibras understands that its Suppliers must constantly implement plans of continuous improvement in all Manufacture processes related to product production. The goal is to reduce the variation and guarantee the process stability and capacity while the product is manufactured and supplied to Avibras.

Suppliers must frequently:

- Evaluate its Organizational Quality, Punctuality and Performance Indexes;
- Review its FMEAs, Process Flux Diagrams and Control Plans in accordance with the delivery performance information.

These actions must always aim at the “Zero Defect” policy in its products and on the change or stability of the Supplier position at a high level of quality, as mentioned in the table above.

Chapter 19

Recognition Management

In order to improve the competitiveness of the supplied items, as well as to enhance the relations between the parts, Avibras recognizes the Suppliers that comply with the Quality Requirements and stands out due their performance and efforts to consolidate a partnership bond.

These Suppliers will be prioritized regarding:

- Increase of supply participation;
- Participation in the development of new projects.



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