



Indústrias Mangotex Ltda.

SUPPLIER QUALITY MANUAL (0340-01)

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REVIEWS

rev	Date	HISTORIC	Developer / Analysis	Approver
02	05/31/2024	topics are bordered or described in blue Changed procedure code from: IT-GTQ-002 to: 0340-01	Cleber S./Roberto C.	Marcelo C.
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I. OBJECTIVE

The objective of this Manual is to disclose the criteria and requirements established by the MANGOTEX Management System to its suppliers and ensure commitment to the Quality, Environment, Occupational Safety and Health of its products and services. The decision to purchase from a particular supplier depends on a multidisciplinary team that essentially evaluates the supplier's ability to meet these criteria and requirements.

MANGOTEX may at any time without prior notice publish the “Letter of Clarification” on its portal with the aim of clarifying or changing any requirements, until the publication of the new updated version of this manual, as well as the described annexes ([https:// mangotex.com.br](https://mangotex.com.br)).

II. TERMINOLOGIES

- **EQF** – Supplier Quality Specialist (called Product Engineer)
- **IQF** – Supplier Quality Index
- **APQP** - *Advance Product Quality Planning* or Advanced Product Quality Planning
- **PAPP** – Production Part Approval Process
- **CEP** – Statistical Process Control
- **RNCF** – Supplier Non-Conformity Report
- **FISPPQ** – Chemical Product Information and Safety Sheet
- **PPM** – Parts Per Million
- **LO** – Operating License
- **CLI** – Integrated Licensing Certificate
- **DNP** – New Product Development
- **EMP** – Raw Material Specification
- **VDA6. 3** – is a process-based audit tool, which is part of the VDA standard document family. It is developed by VDA-QMC (Verband der Automobilindustrie – Qualitats Management Center) and the German automotive industry for organizations that manufacture automotive products or services.
- **Product audit:** Product audit means checking the specific characteristics of the product (e.g.: product measurements, material, functionality, reliability, packaging, identification, appearance, corrosion resistance, temperature behavior).
- **Special characteristics** : is a classification of a product characteristic or manufacturing process parameter. MANGOTEX defines its characteristics as follows: **Security** : they affect user safety or the country's legislation and have a major impact on the company and society, it is symbolized with a triangle with the letter “**D**”. **Critical** : the failure can affect the customer or end consumer's process, causing: scrap, line stoppage, yard blockage, without affecting safety; is symbolized with the letter “**C**”. **Cleaning: related to products: Springs, Buffers, Restrictors and other components (which have interphase in the internal region of the hose) that Mangotex defines, symbolized with the letter “L”.**

III. MANGOTEX SUPPLIERS CODE OF CONDUCT (0340-01 ANEXO 01) AND SUSTAINABILITY PRACTICES

Mangotex takes a carefully planned and executed approach to quality and sustainability, ensuring quality products and services, environmentally responsible and ethical business practices. This strategy begins with the selection of suppliers who share the same values and to ensure compliance with these principles, Mangotex makes this supplier quality manual and the Mangotex Supplier code of conduct available to all its suppliers, hoping that its suppliers adopt practices to:

- Ensure compliance with local and global (where applicable) quality, environmental standards, respect for human rights and fair working conditions.
- Promote clear guidelines to minimize environmental impact, such as reducing water, energy and greenhouse gas emissions, efficient waste management, and sustainable practices with its suppliers.
- Ensure commitment to promoting safe and dignified working conditions for all workers. This includes prohibiting child labor and ensuring fair wages and adequate working conditions.
- Adopt strict adherence to ethical business practices, ensuring total repudiation of corruption, commitment to financial responsibility, accurate disclosure of information, especially related to health, safety and the environment, promotion of fair competition, integrity of parts supplied, respect intellectual property rights and comply with export policies and economic sanctions.
- Stimulate innovation to constantly find new ways to improve sustainability. This may involve introducing more efficient technologies, developing products with a lower environmental impact and implementing more sustainable transport practices.

Promote transparency and compliance through regular audits and the application of rigorous sustainability standards.

- Invest in training and education programs for its suppliers, passing on Mangotex's requirements to its supply chain, ensuring that everyone understands and complies with the standards defined in the supplier's quality manual and Mangotex's code of conduct.
- Ensure transparency in your relationships with your suppliers, collaborating openly and honestly to resolve challenges and promote sustainable practices together.

This Supplier Quality Manual and Mangotex Supplier Code of Conduct ensure that all aspects of the supply chain align with the highest quality, ethical and environmental standards, promoting a lasting positive impact at all levels of your operations . These documents are updated and available for consultation on our portal www.mangotex.com.br.

IV. SUPPLIER SELECTION PROCESS (new supplier)

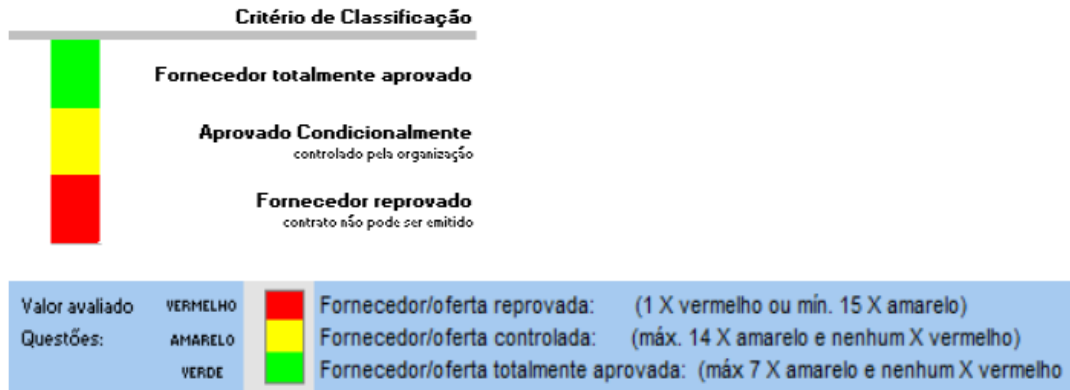
If a potential supplier is not part of the approved Suppliers, the Depts. DNP, Quality, Purchasing and Quotation, are responsible for approval, meeting the following criteria:

- 1st Product Certification and Approval Requirements
- 2nd Quality System Assessment
- 3rd Risk Assessment
- 4th Sustainability Assessment
- 5th Mandatory subscriptions

1st Criterion: Product Certification and Approval Requirements

Type	Products and services	QMS level	CQI (*)	PPAP (**) / Other Documents
Raw material (Manufacturer)	Accelerators, Antiozonant, Antioxidant, Flow Agents, Activators, Adhesives, Fillers, Coagents, Reinforcing Filler, Desiccants, Elastomers, Sponges and Expanders, Oil, Inhibitors, Resins, Plasticizers, Pigments, Peroxides, Process Solvents, Solvents (Catalysts, Paints , Solvents and Diluents), granulated	1- Goal 2- Minimum 4- Acceptable	N/A	Level 1+ Technical Data Sheet, FISPQ, MP Certificate, signed EMP(0340-01 FORM 13), IMDS
Raw Material & Distributor (***)				For products controlled by the Civil Police (Inspection Certificate and Permit for industrial purposes) and Federal Police (Certificate of Cadastral Registration and Operating License Certificate) + Labels on controlled product packaging must bear the inscription: "Product controlled by the Federal Police"
Components1	Injected (rubber, plastic), Metallic (clamps, rings, springs and tubes), protectors (aluminized, corrugated, spongy, flexguard and heat shrink, heat and surface treatment.		X	Level 3 + capacity study (Run@Rate)
Components2	Textile (yarns, bands, fabrics)		N/A	Level 4 + documentation agreed with the DNP area (EQF)
Packaging	-	7- Minimum	N/A	N/A
services	Surface / Heat Treatment (not related to the final product): Zinc Plating, Chrome Plating, Nickel Plating, Nitriding, Carburizing / Quenching, Tempering	2- Goal 4- Minimum 7- Acceptable	X	Level 3
	Re-winding, Mold Making, Mandrels, Control Jig, Cliches	2- Goal 5- Minimum 6- Acceptable	N/A	N/A
	Calibration of Measurement, Testing and Testing equipment	3- Minimum 4- Acceptable	N/A	N/A
	Selection/Rework	2- Minimum 4 - Acceptable	N/A	N/A
SUBTITLES: X = Applicable N/A = Not applicable QMS level 1.IATF16949 = Presentation of the IATF16949 certificate 2.ISO9001= Presentation of the ISO9001 certificate 3.Accredited ISO/IEC 17025 = Presentation of certificates of services accredited by RBC/OAA or equivalent; report must include the national accreditation mark. 4.Customer approved = Evidence of customer approval 5.Potential Assessment (P1): Supplier fully approved 6.Potential Assessment (P1): Conditionally approved supplier 7.Mangotex approval = ISO 9001 Questionnaire(0340-01 FORM 14). NOTE1: Suppliers of Scania items must be ISO14001 and IATF16949 certified, therefore the DNP area must inform the Purchasing area whether it is a Scania item to ensure the selection of a supplier that meets the customer's requirements. For other customers, it will be serviced according to the customer's specific requirement. NOTE2: The LO and/or CLI is applicable if the company's activities involve the use of natural resources or the emission of pollutants. Suppliers certified to the ISO14001 standard (must send a copy of the certificate) are exempt from sending the license. Adaptation to the ISO 14001 standard is encouraged, these suppliers will have preference for approval.		NOTE3: auxiliary materials are materials that do not remain in the final product, as well as non-productive materials and carriers, QMS, performance monitoring and process monitoring requirements will not be required, unless required by the customer. (*) The Supplier must annually send the self-assessment of the process according to the AIAG manuals in the latest version: • CQI 9-Evaluation of Heat Treatment Process • CQI 11-Assessment of Surface Treatment Process • CQI 12-Coating Process Assessment • CQI 15-Welding Process Assessment • CQI 17-Evaluation of White Soldering Process • CQI 23-Evaluation of the Molding System • CQI 30-Evaluation of the Rubber Processing System • Cleanliness_Self-assessment of the process (**) Level of PPAP required from suppliers: - When it comes to a GM item, the level is 5. - The supplier must meet the requirements determined in Check List de PPAP (0340-01 ANEXO 05). (***) – Distributors => The Management System certificate will be required from the manufacturer, and a self-assessment based on VDA 6.3 (correlated to the applicable requirements for receipt, storage and dispatch) and on-site audit at the distributor.		

2nd Criterion : Assessment of the Quality System , using the VDA 6.3 standard (Potential Analysis – P1) according to the criteria below:



Classification:

- **Failed** : makes the supplier unfit for continued development, unless it is a strategic supplier. In this case, it must be approved through the risk and deviation analysis granted by the client.
- **Conditionally approved**: the supplier must submit an action plan within 15 working days, counting from the date of receipt of the report and implement the actions within 90 days.
- **Fully approved**: the Quality/Development Department must continue the approval process.

NOTE1 : in the case of suppliers indicated by the customer, this evaluation will not be necessary, as these suppliers are directly included in the “List of Approved Suppliers”.

NOTE2: suppliers of indirect materials are exempt from evaluation: auxiliary, packaging and supplied by the Customer itself, with only the material being checked visually upon receipt. If any discrepancies or damages in the material delivered are found at the time of checking, they will be blocked and returned to the supplier.

3rd Criterion: Risk Assessment

Method	Classification	Degree of Compliance	Classification Name
Using the Check List Risk Matrix (0340-01 FORM 08)	Low	1.0 – 5.0	Approved
	Average	5.1 – 7.5	Conditional Approved
	High	7.6 – 10.0	Disapproved

4th Criterion: Sustainability Assessment

Method	Classification	Degree of Compliance	Classification Name
Using the Check List Sustainability (0340-01 FORM 05)	Low	80.0 – 100.0	Approved
	Average	50.0 – 79.0	Conditional Approved
	High	< 50.0	Disapproved

NOTE1: MANGOTEX will send the Sustainability Questionnaire every 12 (twelve) months (as a self-assessment), in order to verify compliance with minimum requirements for the Environment, Social Standards, Health and Work Protection and Organizational Ethics.

5th Criterion: Subscriptions

- **Of this Manual** (0340-01 FORM 02)
- **Signing the Product Safety and Compliance Representative Term_PSCR** (0340-01 FORM 03)
- **Signature of the Information Confidentiality Agreement** (0340-01 FORM 04), signed between supplier and company .

Appointment Letter : After completing all the criteria above, you will be evaluated by the Top Supplier team (SQE, Purchasing Manager, Quality, Logistics, etc.) and will send the appointment letter, if the supplier is approved.

V. PROCESS AND PRODUCT AUDIT

MANGOTEX promotes the monitoring of its suppliers' manufacturing processes (except for suppliers of packaging and calibration and selection/rework services) through 2nd party audits, using auditors from MANGOTEX and/or those appointed by it.

a) Supplier self-audit

Before the MANGOTEX audit, the supplier must carry out a self-assessment to internally verify the effectiveness of the improvement program, using a Check List sent by MANGOTEX.

b) Supplier Audit

VDA 6.3 and requirements defined in this procedure will be used. The audit will be formally scheduled with the supplier well in advance. During the verification activity, the supplier must make available to the auditor(s) all the information requested to demonstrate compliance with the requirements and carry out a product audit, at the choice of MANGOTEX. After the audit, the EQF/Auditor will make the audit report available within a maximum period of 15 (fifteen) days. Each question will be evaluated according to its respective requirements and compliance:

Points	Requirements Conformity Assessment
10	Requirements fully met
8	Requirements largely met; small disagreements
6	Requirements partially met; significant divergences
4	Requirements inadequately met; serious disagreements
0	Requirements not met

NOTE1 : When a MANGOTEX customer requests an assessment at the supplier's facilities, the date and method of carrying it out will be agreed between the parties.

NOTE2: Mangotex will carry out (remote and/or in-person) process audit at the distributor, according to questions in the VDA6.3 check list relevant to activities/operations (Ex.: stocks, FIFO, Identification, etc.); However, you will first be sent this VDA6.3 checklist so that you can carry out a self-assessment on your Management System and Process.

NOTE3: Suppliers without certification in their Quality Management System in accordance with the IATF16949 standard will not be classified with an "A" grade in the Process and Product audit .

NOTE4: For international suppliers, a self-assessment carried out by a qualified QMC auditor will be requested and in the absence of qualification, EQF Mangotex must critically analyze the self-assessment and may schedule a video conference to confirm the information and evidence and thus define the self-assessment score. audit

NOTE5: Only suppliers trained in the VDA PSCR course will obtain a score of 10 in the process audit.

c) Classification criteria

The frequency and criteria of 2nd party audits will be based on the risk assessment of suppliers/audit criteria:

- **Classification A**: Suppliers that achieve Classification "A" demonstrate that they are capable of serial production and must issue an action plan for questions with a score lower than 10. The Action Plan must be presented within 15 (fifteen) days after the date of the audit report and will be monitored within 90 (ninety) days.
- **Classification B**: Suppliers that achieve Classification "B" demonstrate deficiencies that may put the quality of the product supplied at risk. You will have a period of up to 15 (fifteen) days after the date of the audit report to issue an action plan, which will be monitored for up to 90 (ninety) days, or until its closure. It will be up to MANGOTEX to decide whether to close on-site or off-site, with prior communication to the supplier.
- **C Rating**: Suppliers that achieve a "C" rating are automatically prevented from providing new business . An action plan must be presented, within 15 (fifteen) days after the date of the audit report, with a visit scheduled to verify the effectiveness of the actions and scheduling a new audit within one year, in the meantime it is suspended for new business (New Business Hold supplier) . The evolution of the classification from C to B will only be given when the degree of conformity is ≥ 85 points .

Process audit note classification

Classification	Degree of conformity
A	90- 100
B	80 - 89
W	0 - 79

d) Relegation rules :

correspond to VDA6.3 rules and MANGOTEX requirements. The supplier will be notified in writing of the downgrade by the Quality Department.

- **Reasons for downgrade from A to B, despite EG≥90% compliance level:**

- ✓ Lacks quality management system certification (IATF16949);
- ✓ In the product audit, class "B" or systematic "C" failures were found (see 0340-01 ANEXO 03);
- ✓ Risks were detected in the supply chain, which have a direct influence on the quality of products supplied directly to MANGOTEX. This will lead to demotion of the direct supplier.
- ✓ Present IQF level C for three consecutive months (last 3 months)

- **Reasons for downgrade from B to C, despite EG≥80% compliance level:**

- ✓ In the product audit, class "A" or systematic "B" failures were found (see 0340-01 ANEXO 03);
- ✓ Risks were detected in the supply chain, which have a direct influence on the quality of products supplied directly to MANGOTEX. This will lead to demotion of the direct supplier.
- ✓ Quality management system certification (minimum ISO9001), not available or withdrawn.

- **Reasons for direct demotion to C (even without auditing):**

- ✓ The implementation of the improvement program (from: process audit, RNCF, etc.) is denied or is not carried out; this extends to confirming the implementation of the improvement plan;
- ✓ Unacceptable deadlines to achieve the quality objectives required by the customer;
- ✓ Negative performance or a risk of non-fulfillment of the function of the product (raw material or component), during a problem analysis or a visit by a MANGOTEX auditor;
- ✓ Access to the process and all manufacturing steps for the performance of MANGOTEX supplier audits (e.g. VDA 6.3, P1, visits) is denied;
- ✓ Quality management system certification (minimum ISO9001), not available or withdrawn.
- ✓ Present IQF level C for more than 4 consecutive months;
- ✓ Present IQF level D at least twice in the last 6 months

e) Criteria for defining the frequency of process audits:

An audit will be carried out at the supplier if one or more of the following criteria is highlighted:

- ✓ Risk Class: High;
- ✓ Changes in the supplier (according to IATF16949 8.5.6: Ex.: change of location; new machines / equipment; new manufacturing methods; change in sub-supplier, etc.);
- ✓ Lowering of the IQF average in the previous year from C to D;
- ✓ Loss or Suspension of the IATF16949 Certificate or Suspension of the ISO9001 Certificate;
- ✓ Process Audit grade C;
- ✓ Increased demand from the supplier;
- ✓ Suppliers who obtained Controlled Shipment in the previous year.

VI. SUPPLIER DEVELOPMENT

MANGOTEX will not give up encouraging its entire supply chain to seek IATF 16949 certification and

a. Along with the VDA 6.3 process audit, a MAQMSR audit will be carried out on ISO 9001 suppliers, which is based on the Minimum Automotive Quality Management System Requirements for Sub-tier Suppliers in order to develop the supplier to meet the requirements of the IATF standard 16949 item 8.4.2.3. Reference material: <https://www.iatfglobaloversight.org/oem-requirements/customer-specific-requirements/>

b. A Quality and Environmental Management Development Letter (0340-01 FORM 07) will be sent to the supplier to analyze the intention to obtain IATF 16949 and ISO 14001 certifications.

VII. MANGOTEX SPECIFIC REQUIREMENTS

Legend: C (components); MP (Raw Material - see item IV);

	Ref. ISO9001 /IATF16949	Subject	Requirements	C	M P
1	4.3.2	Customer specific requirements	Derogations: the supplier must use the Form for Approval of Specific Derogations(0340-01 FORM 10); no more than 1 (one) derogation must be requested per letter; The form must describe the specific requirement of MANGOTEX, the reason for non-compliance and also the deadline for compliance. Action plans, implementation schedules, explanatory letters and other evidence must be attached to the same email that the derogation request letter is being sent.	X	X
2	4.4.1.2	Product safety	All product safety, regulatory and statutory features must be contained in the FMEA, Control Plan, Flowchart and broken down into the Instructions, Work Stations; and provide training for employees involved in the process and for the entire supply chain. *In order to meet the specific requirements of our customers, MANGOTEX requests the appointment of the person Specialist Responsible for Product Safety and Responsibility in your company, Term PSCR(0340-01 FORM 03). The supplier must require this same appointment/indication from its sub-suppliers.	X	X
3	5.3.1	Roles, responsibilities and authorities	You must formally notify the Dept. MANGOTEX Quality, within 10 working days, regarding any changes in the person responsible for Product Quality and the company's Property.	X	X
4	6.1.2.3	Contingency plans	They must have documented contingency plans regarding supply capacity and analysis of risks of shortages and periodically test these plans. The supplier must notify the Purchasing, DNP and Quality Depts within 24 hours of any interruption in production.	X	X
5	7.1.5.1.1	Measurement System Analysis	Perform MSA for all measurement systems provided for in the control plan. Including studies of Stability, Linearity, Trend, Reproducibility, Repeatability and Mean and Amplitude of R&R	X	
6	7.1.5.3.2	External Laboratory	ISO/IEC 17025 certified testing and calibration laboratories must be used, with validity not expired or, unless vetoed by MANGOTEX, laboratories accredited by RBLE (Brazilian Network of Laboratories and Testing), RBC (Brazilian Calibration Network) or OEM (automakers). The calibration certificate or test report must include the mark of a national accreditation body.	X	X
7	7.2.1	Competence - Supplement	Must have a Versatility Matrix and have training in the AIAG Manuals: CEP, MSA, PAPP, FMEA and Occupational Safety issues	X	X
8	7.2.4	Competence of the second party auditor	Knowledge of VDA 6.3 and VDA 6.5 is recommended.	X	
9	7.3.1	Awareness - supplement	An awareness of this manual must be provided, reporting the specific requirements of MANGOTEX to employees involved with the product(s) supplied, as well as to their sub-suppliers.	X	X
10	7.4	Communication	You must notify MANGOTEX of any changes in your registration status of your certification: IATF 16949, ISO9001 and ISO14001. These changes include, but are not limited to: Initial certification, Recertification, Transfer of certification to a new Certification Body, Withdrawal of certificate, Cancellation of certificate without replacement. Whenever the company is recertified, an updated copy of the certificate must be sent to the Department for storage. Quality. The main language between MANGOTEX and the supplier will be Portuguese (Brazil), except for international suppliers, in which English will be used. You must complete and keep Contact List (0340-01 FORM 06) updated and send a copy to MANGOTEX.	X	X
11	7.5.3	Control of documented information	Where the supplier uses MANGOTEX documents or other documents of external origin, they must ensure the most current version, or the one specified by MANGOTEX. Drawings and specifications must be requested from the Dept. of Purchasing or DNP. It is the supplier's responsibility to update versions before use.	X	X
12	7.5.3.2.1	Records Retention	The supplier must retain records so that: <ul style="list-style-type: none"> • APQP/PPAP: maintain for as long as the part (or family of parts) is active for production and/or replacement, plus 1 calendar year; • Production inspection and testing records: safety items (minimum 15 years), remainder (minimum 3 years). • Internal audits, management critical analysis minutes: minimum for 3 years. • Calibration of measuring equipment: for one calendar year. NOTE1: MANGOTEX is authorized to inspect records and documents at any time.	X	X
13	8.2.3.1.2	Special features designated by the customer	The supplier may use its own symbols to identify special characteristics. However, a correlation table must be established and, in the case of drawings sent to MANGOTEX, the above symbols must be used or the correlation table must be inserted in each document. When the characteristic to be monitored is not specified, it is at the supplier's discretion to assign the quota, noting that the critical points of their process must be monitored. MANGOTEX may request evidence of the study when it deems necessary.	X	

	Ref. ISO9001/ IATF16949	Subject	Requirements	C	M P
14	8.3	Design and development of products and services	<p>Suppliers and their subcontractors must have a product development system (the AIAG APQP manual is recommended).</p> <p>When developing new items, or replacing raw materials, where applicable, the supplier must register with IMDS (International Material Data System) and REACH (Registration, Evaluation, Authorization and Restriction of Chemicals).</p> <p>The raw material registration must be submitted to IMDS (http://www.mdssystem.com) to obtain the declaration of conformity for Restricted and Reportable Substances. The IMDS submission number (Component or Raw Material ID) must be recorded on the cover of the PPAP (PSW). The IMDS registration must be sent to MANGOTEX. No. 9574. The following are considered conflict minerals: Tantalum, Tungsten, Brass and Gold. If used in some of your processes or those of your suppliers, your company must make sure that the material does not come from conflict regions such as the Democratic Republic of Congo (DRC); and/or in adjacent countries that extract these minerals in a way that directly affects human rights. MANGOTEX, as an exporter of products to Europe, meets and extends to its suppliers the need to comply with European Directive 2000/53/EC of September 18, 2000, which determines, among others, mainly the prohibition of the use of metals (Lead, Mercury, Cadmium and Hexavalent Chromium) in its products, in order to comply with regulatory requirements related to the end of useful life of vehicles, in addition to the REACH registration of the chemical substance on the ECHA website (https://echa.europa.eu) in order to demonstrate that the raw material is handled safely throughout the supply chain to ensure the protection of human health and the environment. REACH registration is mandatory for chemical substances that will be sent to the European Union in quantities equal to or greater than one ton per year (check this information with Mangotex). The REACH registration, when applied, must be sent for composition of the PPAP (PSW).</p>	X	
15	8.3.4.3	Prototype Program	The supplier must send the prototypes, properly packaged, and identified with a standardized label. Each shipment of prototypes must be accompanied by the Dimensional Report, Fillet Drawing and Material Report. Failure to comply with the above is understood as failure to supply and the appropriate penalties will be applied.	X	
16	8.3.4.4	Product approval process	<p>Send the PPAP samples properly packaged and identified with the label "PAPP SAMPLES (0340-01 ANEXO 04)". PAPP documentation must preferably be sent in electronic form. The supplier must obtain PAPP approval to:</p> <ul style="list-style-type: none"> • A new part or product; • Correction of a discrepancy in a previously submitted part; • Product modified by an engineering change; • All changes or activities that affect the fit, shape, durability or performance of the product or assembly; • Manufacturing process and location changes <p>Part Submission Status</p> <p>The Supplier will be notified of the willingness to submit the PAPP documentation so that a copy is returned to the supplier and a copy is kept on file at MANGOTEX. PPAP Status:</p> <ul style="list-style-type: none"> • Full Approval : indicates that the part or material meets all specifications and requirements. The supplier is able to supply. • Conditional Approval: Allows you to ship a part or material for a limited time or based on quantity. It will only be granted when the supplier has clearly defined the cause of the non-conformities that prevent production approval and has prepared an action plan previously agreed and approved by MANGOTEX. Re-submission is necessary to obtain "full approval" without which delivery of production batches after the conditionally accepted deadline or quantity is not permitted. Additional submissions are not authorized unless an extension for temporary approval is granted or the full PAPP submission has been approved, without which the next batch of material will be subject to rejection. • Rejected: the production batch or documentation does not meet the requirements. The correct product and/or documentation must be submitted and approved before production quantities can be shipped. <p>Requalification: the supplier must carry out requalification every three years for each MANGOTEX product.</p> <p>NOTE1: Product requalification would normally entail full validation for all product approval requirements (e.g. PPAP or PPA) and therefore exceeds the scope of a layout inspection.</p>	X	X

	Ref. ISO9001/ IATF16949	Subject	Requirements	C	M P
17	8.3.5.2	Manufacturing process design outputs	<p>Process Flow Diagram: the supplier must have a process flow diagram in accordance with AIAG standards clearly describing each step of the process including inspection, transportation and storage, in addition to being aligned with the Control Plan and process FMEA.</p> <p>FMEA: the supplier is responsible for understanding and using FMEA according to AIAG specifications. From 2025 onwards you must be using FMEA/VDA.</p> <p>Control Plan: See item 8.5.1.1.</p> <p>Packaging: packaging used by suppliers must have been previously approved by the EQF, as they must comply with capacity limits, shape, identification and other applicable legal requirements.</p>	X	
18	8.4.1.2	Supplier selection process	Only use sub-suppliers that have ISO900 certification, a self-assessment questionnaire will not be accepted. It must implement supplier selection management, based on the risks in the supply chain.	X	X
19	8.4.3	Information for external providers	Monitoring and qualification of subcontracted suppliers must be the responsibility of the supplier, in accordance with this manual. MANGOTEX reserves the right and authority to monitor, review and/or approve the processes of subcontracted suppliers and respective facilities, when necessary. The Supplier must approve externally provided products and services in accordance with this requirement prior to submitting approval of its part to the customer.	X	X
20	8.5.1.1	Control plan	The supplier must develop a control plan in accordance with AIAG standards and feedback must be provided based on detected non-conformities, product, process, measurement, movement, supplier and/or FMEA changes.	X	
21	8.5.1.2	Standardized work	Operator instructions must: be communicated and understood; legible; accessible language to follow them; and be available for use in the workplace	X	X
22	8.5.1.3	Setups	Process and product approval records must be recorded by authorized and trained people to release the Setup.	X	X
23	8.5.1.5	Total productive maintenance	You must maintain a system for preventive and corrective maintenance and determine their useful life. It is recommended that there is an effectively implemented process for analyzing and optimizing downtime and managing the availability of spare parts for key products/equipment.	X	X
24	8.5.1.6	Tooling management	Establish an adequate storage methodology that is easy to retrieve whenever necessary.	X	X
25	8.5.1.7	Production schedule	The supplier must not send Mangotex products less than 50% of their manufacturing expiration date. Otherwise, the lot may be returned.		X
26	8.5.2	Identification and traceability	Have a material tracking system to limit the consequences of any defect that occurs	X	X
27	8.5.3	Property owned by external customers and providers	<p>Any tooling that MANGOTEX makes available to the supplier is for use solely and exclusively in production, and must be kept in good condition by the supplier while in its possession; If it is worn, broken or damaged, it must be repaired by the supplier and the actual costs at your expense, except natural wear and tear relating to the useful life of the Tooling. MANGOTEX tooling must be identified and standardized as "MANGOTEX PROPERTY", it must have a control that keeps the tooling clean and maintained and can be quickly located. Any lost or damaged tool must be reported to MANGOTEX.</p> <p>Any concession of tools, devices or equipment will only be made after the signing of "Lending Agreement" (0340-01 FORM 11). Variations of this model may be negotiated in specific circumstances.</p>	X	X
28	8.5.4	Preservation	The supplier must ensure the preservation of the product throughout the entire production process (input and output). E.g.: stacking, cleaning, contamination and mixing, protection against damage; correct product and quantity.	X	X
29	8.5.6	Change control	In the event of any change, regarding any material, production method or process, machine, tool, or any other factor that may affect the quality of parts or inputs, the supplier must notify MANGOTEX (Purchasing, DNP and Quality Depts.) at least 90 (ninety days) in advance of intended implementation. This includes changes to location, CNPJ and State Registration. Any change (in the process, product or suppliers) made without authorization by MANGOTEX will be a breach of the terms of this manual and will make the supplier or sub-supplier liable for losses and damages (Examples: costs of field failures, warranty expenses, rejections, fines, etc.), penalty in the IQF score, will result in a "C" grade and it is still up to MANGOTEX to contact the Certification Body and place the supplier in business on hold. You must use the form Change Request (0340-01 FORM 12).	X	X

	Ref. ISO9001/ IATF16949	Subject	Requirements	C	M P
30	8.6	Release of products and services	<p>QUALITY CERTIFICATES Every batch of raw materials must be accompanied by a quality certificate, attached with the invoice. It will not be required for components in each batch.</p> <ul style="list-style-type: none"> • Raw Material Suppliers: batches must be accompanied by a Quality Certificate, containing: characteristics of the material (chemical composition, mechanical properties, dimensions and other characteristics agreed with MANGOTEX). • Heat Treatment Service Suppliers: batches must be accompanied by a Quality Certificate covering: the batch produced, containing the values (specified and found) of the relevant characteristics (hardness, layer thickness, etc.). • Surface Treatment Service Suppliers: batches must be accompanied by a Quality Certificate covering: the batch produced, values (specified/found) of the characteristics (layer thickness, resistance to Salt Spray, etc.). • Chemical product suppliers: see item IV (1st Criterion: Product Certification and Approval Requirements) <p>NOTE1: it is the supplier's responsibility to send the most recent copy of the certificates (electronically, physical sending is not mandatory), failure to do so will result in demerits in the IQF.</p>	X	X
31	8.6.2	Layout inspection and functional testing	After PAPP approval, layout inspection must occur every 12 months. The supplier must retain and present if requested. The layout inspection must contain the requirements: Billed Drawing and Dimensional Report with all specifications of the approved PAPP; Any change to the layout inspection frequency must be submitted to MANGOTEX and will only be considered effective after formal approval.	X	
32	8.7.1.1	Authorization for granting from the client	Authorization to manufacture products different from MANGOTEX specifications is limited to the quantity of parts or period of time, with EQF approval being mandatory. Every batch supplied under diversion must contain a label on each package with the following inscription: UNDER DEVIATION. The supplier must use the Form for Approval of Specific Derogations (0340-01 FORM 12) and together with an analysis of the non-conformity and an action plan to eradicate the root cause	X	X
33	8.7.1.4	Reworked product control	The Supplier must prepare rework instructions, training those involved and record these operations.	X	X
34	8.7.1.6	Customer notification	The supplier must notify MANGOTEX within 24 hours or sooner if a non-conforming product has been shipped.	X	X
35	9.2.2.3	Manufacturing process audit	The Supplier must carry out a process self-audit valid for a maximum of 12 months. It is recommended that the supplier obtains knowledge and training in the VDA6.3 Manual.	X	X
36	9.2.2.4	Product audit	It must be defined in the Product Control Plan and carried out at least every 12 months, for each manufactured product, such as a part in series production. Any non-compliance found in the audit, the supplier must evaluate according to Fault classification (0340-01 ANEXO 03).	X	X
37	10.2	Non-compliance and corrective action	MANGOTEX requests that the supplier, when there are divergences in relation to product and process needs, analyze the causes and verify immediate and corrective actions for their effectiveness. QMS documentation (Control Plan, FMEA, Instructions) is updated as necessary	X	X
38	10.2.3	Troubleshooting	<p>In cases where non-conformities occur in supplied products, MANGOTEX will send the Supplier Non-Conformity Report – RNCF to the supplier. The supplier must have established a procedure and appropriate processes to take all necessary corrective and preventive actions for rejections or non-conformities detected at MANGOTEX.</p> <p><u>The containment action must be carried out within 24 hours (after notification of non-compliance) and must be maintained until the effectiveness of the implemented corrective action is duly verified on site or through evidence.</u></p> <p><u>The response time for causes, corrective actions and their standardization is 5 working days , starting after sending the RNCF, failure to comply with this period will result in demerit in the IQF.</u></p> <p><u>Non-conformity actions must be implemented within 30 days, except for actions negotiated with the Department. MANGOTEX quality.</u></p>	X	X

	Ref. ISO9001/ IATF16949	Subject	Requirements	C	M P
38	10.2.3	Troubleshooting	Any reworks, selections, losses and costs associated with non-conforming materials are the responsibility of the SUPPLIER and, including costs of rejections (sets), yard actions at the customer, field actions and others, due to failure of the purchased component/material. Lessons Learned: The Supplier must collect information resulting from experience, both from previous projects and ongoing projects (e.g., from field and production area failures, project performance, product safety), and apply it , such as lesson learning, to new projects and development work, to your ongoing production operations, and to your supply chain.	X	X
39	10.3	Continuous improvement	The Supplier must reduce its relevant levels of rejection and rework internally and at the Customer by introducing the necessary measures. This information must be presented to the Customer upon request.	X	X

VIII.SUPPLIER QUALITY INDEX - IQF

MANGOTEX, in continuous improvement in evaluating the performance of its Suppliers, establishes monitoring guidelines, according to the following equation (except for packaging and service suppliers):

IQS => Management System Index

IQP => Product Quality Index

IQR => Response delay index

IQE => Delivery Quality Index

$$\mathbf{IQF \Rightarrow (IQS + IQR) \times 0.4 + (IQP + IQE) \times 0.6}$$

Index	Requirement	Criteria/Factor	Punctuation	
IQS	IATF16949 + ISO14001	-	80	
	IATF16949		70	
	ISO9001 + ISO14001		60	
	ISO9001		50	
	Approved by the customer		30	
	No certification / Expired certification		0	
IQR	Response delay index Expired Operating License, Expired VDA6.3 Audit Action Plan, CQI Self-Assessment (where applicable) not submitted	Without delay	20	
		Late	0	
IQP	PPM (quantity rejected, divided by total quantity delivered x 1,000,000)	0 - 30	15	
		31 - 60	10	
		61 - 100	5	
		Above 100	0	
	Quality complaints	Recidivism	Existing	20
		Non-compliance response delay (8D) Containment within 24 hours and Definition of the CA /action plan within 5 days	Nonexistent	25
			Existing	0
	End customer disruption	In the receiving plant, yard blockage, dispatch interruption, field action (Recall), CSP, Line Stop (Customer), Breach of Trust	Nonexistent	15
Existing			0	
IQE	Delivery Quality Index Attendance at the delivery window (according to purchase order and purchase negotiation) Note1: Considering material entering the warehouse Note2: number of special freight occurrences will be considered	Without delay	20	
		Late	0	

Classification and mutual decisions are based on your performance in the period:

EVALUATION SYSTEM – IQF		
IQF		ACTIONS / RECOMMENDATIONS
Great (A)	95 to 100	No action required
Good (B)	85 to 94	No action required
Regular (C)	70 to 84	<ol style="list-style-type: none"> 1) Mandatory submission of the action plan; 2) Possibility of audit to verify the effectiveness of the action plan at the Supplier's plant; 3) If this occurs for three consecutive months in this classification, a meeting (Top Supplier) may be requested. It is mandatory to sign an agreement and goals to return to the minimum classification of B (if the agreement/goals are not reached, it will be downgraded to D).
Terrible (D)	0 to 69	<ol style="list-style-type: none"> 1) Mandatory submission of an action plan; 2) Carry out an audit to verify the effectiveness of the action plan at the Supplier's plant; 3) Meeting call (Top Supplier) if presenting IQF < 70 for 2 months in the last 6 months. It is mandatory to sign an agreement and goals to return to the minimum B classification (if the agreement/goals are not reached, you will be downgraded to new business). 4) Possibility of entering CSP1 or CSP2 (Valid for production parts and services);

NOTE1: The supplier will receive its performance quarterly through the Department. of Quality, through the supplier's Performance Report. For cases where the IQF score is ≤84 points, the supplier will receive the performance in the month after the score is closed.

IX. CRITICAL SUPPLIER PROGRAM (CSP)

A supplier that fails to meet quality and satisfaction requirements, for example with respect to the quality of products supplied, product and production approval (design phases), field and warranty complaints, may be assigned to the Supplier Program Critics. The Program has four escalation levels:

- CSP 0 _ Supplier has problems
- CSP 1 _ The Supplier was unsuccessful in solving these problems
- CSP 2 _ The Supplier needs external help
- CSP 3 _The Supplier is not suitable for quality (new business on hold).

The classification of levels 0 to 2 is assigned by the Dept. Quality.

a.CSP-1

It will be communicated via letter or email (0340-01 FORM 15), indicating the non-conformity(s), the affected product(s) or service(s) and other requirements that must be met during the CSP period- 1. The supplier must acknowledge receipt of the request and submission of its proposal for additional inspection to the Department. of Quality, indicating the methods, illustrations, instructions and notes involved in this activity. Inspection result history must be recorded, updated and reviewed daily. It is mandatory that during the validity of CSP-1, all batches are additionally identified with the “CSP-1” symbol, clearly and visibly on the outside of all packaging. Lots supplied without proper identification will be rejected upon receipt by MANGOTEX.

b.CSP-2

In addition to the applicable requirements for CSP-1, the supplier must consider:

- The addition of a second reinspection bench (200% inspection).
- Reinspections must be carried out by outsourced companies, approved and/or indicated by MANGOTEX, whose costs will be passed on to the supplier .
- Schedule a “Process Audit” with the Quality Department within 3 working days after sending the “CSP-2” notification, with the aim of identifying the causes of non-compliance and determining the resulting actions.

NOTE1: upon agreement between the parties, the “CSP-2” inspection station can be located at the MANGOTEX facilities and the costs passed on to the supplier .

NOTE2: regardless of the location of the inspection station, the supplier is responsible for identifying all packaging with the CSP-2 label.

NOTE3: MANGOTEX requests that the supplier notify its certifying body about its current status in CSP-2. MANGOTEX must be included in said notification.

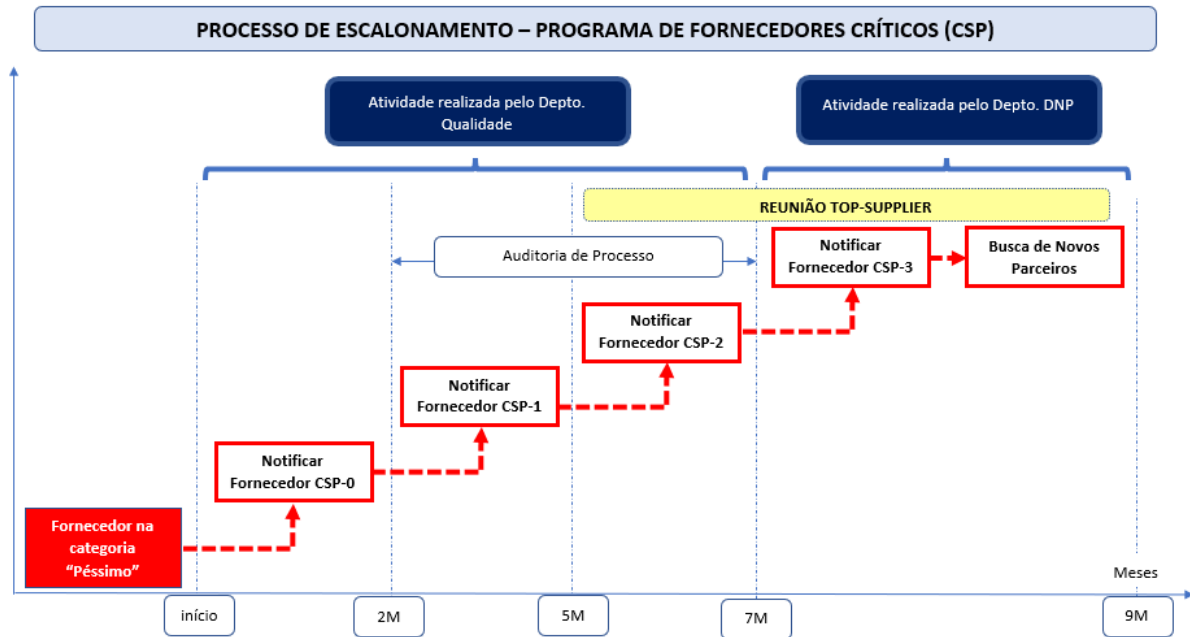
c. CSP-1 and CSP-2 EXIT CRITERIA

The CSP will be suspended by MANGOTEX, by letter (0340-01 FORM 16) after the supply of 5 consecutive batches with “Zero Defects” and upon documentation from the supplier that demonstrates the effectiveness and efficiency of the actions implemented.

NOTE1: Under no circumstances is the supplier authorized to interrupt CSP “1” or “2” inspections without authorization and/or formal agreement from MANGOTEX.

d.CSP-3

A level 3 rating can only be assigned by the DNP Department, in a Top-Supplier meeting (with the Departments: Quality and Purchasing). A “C” grade may only be removed at this same meeting, and only after an appropriate interval. Improvement measures that have been proven to be effective, for example, performance indicators (IQF and others), agreements reached at the Top-Supplier meeting are the basis for such a decision.



X. COSTS OF NON-QUALITY – COMPENSATION PROCESS

If the supplier's responsibility for the problem is confirmed, it will be communicated in advance and in writing, with some of the following costs being assumed:

- “Non-conforming” batch detected in MANGOTEX production;
- Production downtime caused by quality or supply problems (delivery);
- Selection or rework with MANGOTEX labor;
- Occupation of physical space in selection or rework carried out within MANGOTEX;
- Losses of materials and labor added to the “non-conforming material” calculated as appropriate;
- Outsourced labor used by clients in selection or rework, which will be charged according to the contracted company's invoice;
- Debts imposed on MANGOTEX by its customers, generated by breaches of quality or shortages under the responsibility of suppliers;
- Extra freight, generated due to quality breaches or shortages under the responsibility of suppliers, depending on the expense generated.

XI. CONTACTS

DEPTS	PHONES	EMAIL
DEVELOPMENT (DNP)	11-2118-9883	dnpgeral@mangotex.com.br
	11-2118-9867	dnp.export@mangotex.com.br
SHOPPING	11-2118-9851	compras@mangotex.com.br
QUALITY	11-2118-9870	gestao.qualidade@mangotex.com.br
	11-2118-9871	qualidade01@mangotex.com.br
		analista.lab@mangotex.com.br

**Term of Receipt and Acceptance of
Supplier Quality Manual (0340-01 FORM 02)**

Make a copy or highlight this page and send the signed copy to the following address:

e-mail: analista.lab@mangotex.com.br; qualidade01@mangotex.com.br

We have received the Supplier Quality Manual and understand and agree with the expectations expressed therein – **V2_05.31.2024**

Company: _____

Responsible (Name) Signature Date

RETURN THIS RECEIPT TERMS AT THE MOST 10 (TEN) WORKING DAYS AFTER RECEIPT OF THE MANUAL, IF IT IS NOT RETURNED BY THIS DATE, IT IS ASSUMED THAT THE REQUIREMENTS ARE MET BY THE SUPPLIER.