Global FFT Guideline

Sourcing

Guideline for Suppliers

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Freudenberg Filtration Technologies Gruppe

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Guideline – Sourcing – Guideline for Suppliers

Table of Contents

Guideline – Sourcing – Guideline for Suppliers

Guideline – Sourcing – Guideline for Suppliers

1. Introduction

Our validity and position on the global market is decisively determined by the quality of our products and the competitiveness. Both, quality and environmental compatibility of deliveries have a direct influence on our products. Therefore, we place the requirements set forth in this guideline on the quality management system (QM system) and the processes of the suppliers or contractual partner.

This guideline shall contribute to avoid quality problems, ensure effective processes between the Freudenberg Filtration Technologies Group (FFT) and its suppliers, reduce costs, ensure environmental compatibility and sustainability of products and processes, minimize risks, meet customer and market requirements, and act in compliance with law and regulations.

The Freudenberg Filtration Technologies Group expects its partners to make zero-defect deliveries in accordance with the terms and conditions stipulated in contractual agreements, regardless of whether these deliveries are made directly or indirectly.

This means 100% compliance with delivery obligations in terms of quality, delivery date and delivery quantity as a basic requirement.

Supplier recognition of and compliance with these guidelines, together with supplementary quality assurance agreements where necessary, are a prerequisite for cooperation with the Freudenberg Filtration Technologies Group. It is an integral part of the General Terms and Conditions of Purchase of FFT and applies in addition to the terms and conditions of the purchase contract.

1.1. Scope

Freudenberg Filtration Technologies Group

1.2. Expression of provisions

Requirement – the terms “shall” and “shall not” indicate requirements strictly to be followed in order to conform to the document and from which no deviation is permitted.

Recommendation – the terms “should” and “should not” indicate that among several possibilities one is recommended as particularly suitable, without mentioning or excluding others, or that a certain course of action is preferred but not necessarily required, or that (in negative form) a certain possibility or course of action is depreciated but not prohibited.

Permission – the terms “may” and “need not” indicate a course of action permissible within the limits of the document.

Possibility – the terms “can” and “cannot” indicate a possibility of something occurring.

All definitions are derived from [1].

1.3. Changes and Approval

Changes to the content of this guideline are the responsibility of the Global Director Sourcing. The Guideline for Suppliers is reviewed at regular intervals (at least once every 3 years) and in the event of significant changes to determine whether any adjustments are required. Suggestions for changes and improvements shall be communicated to the document owner.

When a change is made, a copy of the invalid edition shall be retained centrally for at least 3 years. During the retention period, the guideline shall be backed up on a separate drive. Official notification that the guideline has changed shall be made via defined communication channels by the document owner

Guideline – Sourcing – Guideline for Suppliers

2. Integral Quality Management

The terms "quality and environment" have a high priority in the minds of our customers. The quality management system (QM system) of the Freudenberg Filtration Technologies Gruppe, referred to as FFT below, is based on DIN EN ISO 9001, DIN EN ISO 14001, OHSAS 18001, ISO 45001 and ISO 27001 and takes into account - in the automotive industry - the industry-specific requirements of IATF 16949 as well as further specific requirements of automotive customers, such as TISAX (Trusted Information Security Assessment Exchange).

FFT expects from its suppliers the adoption, retention and enhancement of an up-to-date and effective management system in order to hence create the basis for the manufacturing of high quality, competitive prod.

In the automotive industry, certification according to DIN EN ISO 9001 and DIN EN ISO 14001 is mandatory. The requirements of IATF 16949 shall be met.

The duties of the suppliers include:

- Employment of qualified staff (continuing education)
- Close co-operation during the development process (development supplier),
- Selection of qualified and reliable sub-suppliers,
- Use of products and services that meet set requirements,
- Production according to valid technical documentation,
- Fulfilment of quality characteristics and proper function,
- Documentation and evaluation of quality data,
- On-schedule and zero-defect deliveries of products and services,
- Spare handling of resources and avoidance of ecological damage during production and usage.

Furthermore, the continuous development of the supplier's QM system is mandatory. The following priorities are set:

- Continuous improvement,
- Promote error avoidance,
- Strengthen reliability and process capability in the value chain,
- Effectiveness of the QM system,
- Securing the compliance with relevant laws and governmental regulations.

The evidence of a well-functioning QM system shall be provided by the supplier itself through regular, in-house audits. Likewise, qualified employees of FFT, if necessary, convince themselves of the effectiveness of the QM systems of their sub-suppliers after agreement with the supplier.

The supplier remains exclusively responsible for the quality of the products and services. It knows the function of the delivery item and its processes. This also applies if FFT specifies individual sub-suppliers and components.

Freudenberg Filtration Technologies Group prefers suppliers certified according to EN ISO 9001 and DIN EN ISO 14001.

In the automotive industry, certification according to DIN EN ISO 9001 & MAQMSR is mandatory. In addition, we foster the advancement of our suppliers according to the requirements of IATF 16949.

2.1. Quality Assurance at the Sub-suppliers

The supplier shall ensure that its sub-suppliers maintain a functioning QM system as well. The supplier shall safeguard a continuous quality assurance from the development of a product, during its usage up to the end of its life cycle. The supplier is obliged to ask for the same from its own suppliers. The supplier shall convince himself that the products and services obtained by sub-suppliers meet the requirements agreed upon. This requires sampling, releases for series production as well as inspection of incoming goods.

3. General Information

3.1. Capabilities

Series production shall be carried out on machines and equipment whose capabilities have been demonstrated.

Suitable methods, such as statistical process control (SPC), shall be used for the ongoing monitoring, control and assessment of manufacturing processes, with the aim of continuous improvement. For the evaluation of the process capability, it is necessary that the process is under statistical control, i.e. all systematic influences shall be known and controlled.

For **important and critical** product and/or process characteristics that have a crucial influence on product quality, inspections of machine and process capabilities shall be carried out.

The following capability indices are required:

- Machine capabilitiy $c_{mk} \geq 2$
- Provisional procss capability $p_{pk} \geq 1{,}67$
- Ongoing process capability $c_{pk} \geq 1{,}33$

Until the capabilities are achieved, process capability shall be ensured by suitable test scenarios (e.g. 100% inspection).

3.2. Test Equipment and Gauge Capability

The supplier shall ensure the quality of its products by means of suitable testing equipment

Test equipment shall be documented and submitted upon request to FFT.

When planning and before using the test equipment, the following, for example, shall be observed:

- Executing check-ups of test equipment capabilities for specific characteristics*, in line with the MSA-manual of AIAG / *also see *VDA, Volume "Product Design*",
- Considering measurement uncertainties according to EN ISO 10012,
- Identification,
- Determining testing and calibration intervals as well as calibration methods (national, international standards),
- Documenting of results as evidence of control (history),
- Proper handling, protection, storage,
- Evidence of a system for test equipment and test facilities for periodic inspection, which ensures that non-conform equipment is detected at an early stage and is no longer used.

3.3. Statistical Process Control (SPC)

FFT is committed to stable and consistently capable processes; FFT also expects this from its suppliers. A suitable method for this is *Statistical Process Control* (SPC), which the supplier shall demonstrate on the **characteristics particularly** marked in the drawings (test dimensions/measurements). FFT reserves the right to request up-to-date and previous data for all key characteristics of delivered series parts. These arrangements expressly also apply to deliveries within the scope of sampling / initial sampling (see *6.1 „General Information“).*

3.4. Quality Analysis

Important for the continuous improvement of product and process quality is the execution of quality analyses. The detection of cause of errors and the keeping of statistical records are indispensable in the sense of modern quality assurance.

Determining the cause of errors and documenting the results shall be carried out in-house throughout the entire production process and especially in the event of customer complaints.

After assessing sufficiently large amounts of data, important conclusions can be drawn for process improvement. The evaluations are to be applied according to the requirements of the respective customer demands.

3.5. Traceability

The supplier shall provide appropriate methods of traceability of specifically requested characteristics or properties. On request the verification (e.g. *inspection certificate 3.1*) has to be made available within **24 hours.**

In case of a detected defect the traceability shall be such that the quantity of faulty parts/products can be narrowed down. The supplier is obliged to ensure the traceability of the delivered goods. The degree of limitation has to be established after consultation with FFT, taking product-related specifications into account

3.6. Parts History

The supplier has to ensure that a complete and meaningful history record should be kept for each product delivered to FFT. It should include information about tool amendments and adjustments, process optimization, changes of indices, new material used and any other relevant changes or modifications. The history shall be made available on request as well as at sampling stage. It shall be kept at hand for 5 years after manufacturing. 15 years for DmbA-parts (see *VDA, Volume 1 “Documentation and Archiving”*).

4. Technical Documentation / Requirement Specification

The basis for the assessment of the quality of the products and services is always the latest technical documentation provided by ABC to the supplier.

Technical documents in this sense are e.g.:

- FFT CAD data (2D / 3D),
- FFT drawings,
- FFT specifications / order instructions,
- FFT test specifications / measuring method,
- FFT engineering standards and other applicable regulations,
- Material specifications (e.g. “REACh”),
- Customer standards and specifications,
- Corresponding documentation of suppliers bearing the FFT mark of approval,
- List of stated objectives/requirement specifications,

- Procedure instructions,
- Other requirements.

Generally accessible documents (e.g. DIN-, ISO-, VDI/VDE-, ASTM-Normen, BImSchG, WHG, REACh (Europa) and other regulations and laws) shall be provided by the supplier from the relevant bodies at its own expense.

The supplier shall take appropriate measures to ensure that it and its sub-suppliers always produce in accordance with the latest, released change status. It shall ensure that all documents which have become invalid as a result of a change are removed at the time of its implementation (control of documents and records).

The supplier should inform FFT in writing about any documents unclear or seeming to be incorrect.

Change requests of the supplier regarding the technical documentation provided by FFT are subject to the prior written approval by FFT, even if they concern stipulated purchasing sources.

Design-, recipe-, pre-product-modifications to the supplier's products also require the written approval of FFT prior to the introduction thereof.

5. Product- / Process Development

5.1. Development / Design

In order to reduce lead times and minimize product and development costs, FFT is increasingly relying on "Simultaneous Engineering" in the development of new products. The supporting method in this context is project management

An interdisciplinary project team defines the supplier as a partner in the early development phase, announces the project goals relevant to him and includes his activities in the project planning.

In joint project meetings and design reviews, the supplier contributes its know-how to finding the optimum solution.

Achieving the agreed material, quality, cost and deadline targets is therefore a top priority for the supplier and development partner.

5.2. Quality Planning

5.2.1. Quality Planning / Development Phase

If the products and services are developed and designed by the supplier himself, he is responsible for the requirements profiles at product and process level. This includes, among others, the performance of failure mode and effects analyses (design / process FMEA) including the conclusive determination of material requirements, quality and test characteristics to be derived from this.

5.2.2. Quality Planning at Pre-production Stage

We expect from our suppliers that in order to achieve the required process and product quality, all relevant activities regarding facilities, equipment, technologies, methods, materials, personnel and transports are planned, documented and traceable.

5.2.3. Quality Planning / Series Production

The supplier shall carry out systematic project planning in which at least the following aspects shall be taken into account:

5.2.3.1. Producibility Evaluation of Products and Services under Series Production Conditions

This refers to compliance with the minimum requirements of all specified technical rules and instructions, **compliance with legal requirements** in the process and in use, as well as the achievability of the planned quantities in the required quality with the production equipment used at minimized costs.

All products and services, as well as all materials used in the production of the products, shall comply with the applicable legal requirements for restricted, toxic and hazardous substances (REACh and GHS). This shall be proven in a suitable form.

The supplier confirms the "producibility" with the acceptance of the FFT order.

5.2.3.2. Process-FMEA as a Risk Analysis of the Production and Test Processes

If the supplier does not develop the product himself, he will be provided with all data such as functionally important product characteristics, error effect and error significance from FFT's design FMEA, including a correspondingly mark-up drawing. Excessively high risk priority figures shall result in adjustments of a design and/or process engineering nature.

5.2.3.3. Production and Test Planning

The supplier shall maintain a system for the coordination and determination of

- Production and test operations,
- Important functional product and process characteristics,
- Test procedures/methods and measuring and test equipment,
- Product identification, packaging, and shipping,
- Required documentation,
- Procurement of products and services from sub-suppliers,
- Purchase and procurement of products and production facilities.

The selection of important or critical characteristics shall primarily be selected from the design or process FMEA. These characteristics are agreed with the supplier as part of the advanced quality planning process (AQP). These, as well as the production critical characteristics of the process, shall be used for statistical process control. Important characteristics (attributive / variable), which cannot be measured by the supplier in terms of testing technology, require a written approval by FFT.

The determination of the testing scope is influenced by the degree of process capability achieved, the significance of the respective characteristic as well as the possible error effect.

5.2.3.4. Evidence of Capabilities

see *3.1 „Capabilities“ (3.2. „Test Equipment and Gauge Capability*“).

6. Initial Sampling / Production process and product approval (PPA/PSW)

6.1. General Information

Initial samples are requested from the supplier by the FFT Sourcing department by means of an initial sample order with the aim of product release / process acceptance by FFT.

Sampling is carried out exclusively on the basis of released drawings and/or applicable specifications. The release or rejection of the sampling takes place via the respective FFT Quality Engineering department. In the event of faulty sampling on the part of the supplier, a handling fee of € 250 will be charged.

FFT requests the number of initial samples with the order and the deadline. The procedure according to *VDA Volume 2 “Quality Assurance of Deliveries” or PPAP Manual* shall be used as a basis.

Guideline – Sourcing – Guideline for Suppliers

The basis for the production and testing of the initial samples are FFT drawings, specifications and the quality-relevant requirements specified in the contract (e.g. from " Advance Quality Planning"). Initial samples are products which are produced completely with series-production equipment and under series-production conditions. Prior to commencement of series deliveries for new or modified parts, initial samples and their evidence of capability shall be submitted at the agreed date without exception, unless another agreement confirmed in writing has been made with FFT.

The supplier is responsible for carrying out and documenting the initial sampling / modification sampling. FFT reserves the right to perform cross-checks or joint tests. The requirements also apply to sub-suppliers. Series delivery can only take place after FFT has approved the initial sample in writing.

6.2. Definition of Terms

Initial samples:

Parts, assemblies or other production materials produced entirely with standard operating resources and under standard conditions, in accordance with *VDA Volume 2 ("PPF") or PPAP Manual ("PSW").*

Other samples according to DIN 55350 – Part 15:

All samples that do not meet the above conditions, e.g. hand samples, special samples or prototype parts and the associated delivery documents and test reports shall be clearly marked (e.g. sticker "Test sample", "Sample report") and shall be delivered separately

Other samples do not serve for series release.

PPA Report / Part Submission Warrant (*PSW**):

Compilation of all target data defined within the framework of the PPA/PSW procedure as well as the determined actual data from the dimensional, material, functional testing and process investigations (*see chapter 3.1 "Capabilities" / 3.2 "Test Equipment and Gauge Capability*"), incl. evaluation of the results. The PPA/PSW report and further documents (see *VDA Volume 2 "Quality Assurance of Deliveries*"/ "Selection of master stages") shall be enclosed with the initial sample parts.

** With respect to the automotive industry the test report for initial samples will be issued upon request according to "PPAP" and/or customer specific requirements").*

Initial sample tests are required, among others, for:

- New parts,
- Modifications to characteristics (with new revision status),
- Production modifications (new tools, machines, fixtures, manufacturing methods, etc.),
- After a lengthy production stand-still (e.g. for longer than 1 year),
- After relocation of the production site.

Further reasons for Samplings see *VDA, Volume 2* or. *IATF 16949, chap. 7.1.4.*

Furthermore, a proper initial sampling includes

- a clear marking of the initial samples with "Initial sample",
- a separate delivery of the initial samples,
- the positioned drawing / specifications,
- the delivery note, marked with "Initial sample.

In the case of raw materials / chemicals, the following shall also be supplied

- Relevant safety data sheet in accordance with regulation EU 1907/2006 (REACh regulation) and EU 1272/2008 (CLP-regulation),
- Relevant processing instructions,
- Relevant technical data sheets,

- Test certificates,
- Delivery note
- Further regulations (e. REACh, GHS).

6.3. Production Process and Product Approval performed by the Supplier

Before the PPA/PSW/PPAP procedure is carried out, the supplier shall agree on the submission level. Unless otherwise agreed, documents and samples are required according to the following current submission levels:

- according to ***VDA, Volume 2 "Quality Assurance of Deliveries"***, or
- „Level 3" according to ***PPAP-Manual.***

If the customer waives evidence from a PPA/PSW or PPAP procedure, this does not release the organization from the obligation to document the evidence of compliance with the requirements for the production process and the product.

6.4. Execution and Scope of Production Process and Product Approval

All deliveries up to series release shall be delivered with a test report and - if relevant - with a description of modification in the form of a **prototype parts life cycle**. The parts belonging to the delivery shall be provided with a suitable marking which allows a clear conclusion to be drawn about the part life cycle.

The supplier shall ensure that the ingredients of his product are entered in IMDS (International Material Data System).

For characteristics marked "critical" in drawings ("positioning"), unless otherwise agreed in the quality planning meeting, the evidence of process capability shall be provided within the scope of the initial sampling ($p_{pk} \geq 1{,}67$ or according to written agreement). Unless otherwise agreed, the continuous process capability shall be demonstrated with a $c_{pk} \geq 1{,}33$ (see *3.1. "Capabilities", 3.2 "Test Equipment and Gauge Capability").*

In the event of a planned product or process modification, the supplier shall fulfill its obligation to inform FFT, e.g. by sending a schematic description of the production process (FlowChart) and a production control plan. For each modification, FFT expects the early, written modification notification to FFT Quality Engineering department about the expected date of the first, modified goods receipt. Furthermore, the first three deliveries of modified goods or goods with a modified process shall be additionally marked on the delivery note and on the goods.

6.5. Inspection of Initial Samples by FFT for Product and Process Validation (PPV)

After receipt of the PPF report and the initial samples, FFT Quality Engineering department carries out its own tests, if necessary. The test decision is noted on the cover sheet and returned to the supplier.

6.6. Dispatch of initial samples

The delivery of initial samples takes place according to the initial sample order.

Place of unloading: Initial samples with all required documents are to be addressed to the FFT Quality Engineering department.

Guideline – Sourcing – Guideline for Suppliers

7. Quality Assurance during the Series

7.1. General Information

Series deliveries may only be made after release of the initial samples. The release is effected by returning the evaluated PPA/PSW cover sheet. Special releases of not yet evaluated or not yet positively evaluated (initial) samples shall be indicated by the supplier by "special release" on the packaging.

7.2. Testing during Production

In the event of process malfunctions and quality non-conform quality as well as negative sample test results, non-conform parts shall be sorted out and separated, the causes of the defects analyzed, improvement measures introduced and their effectiveness checked.

The tests to be carried out are based on the capability of the processes. The supplier ensures that only products that meet specifications are delivered.

7.3. Capabilities

see *3.1 „Capabilities“ / 3.2. „Test Equipment and Gauge Capability*“

7.4. Documentation / Test Records

Results of quality monitoring / inspections (process parameters, product characteristics) as well as corrective measures taken and implemented to eliminate defects shall be systematically documented in writing. The retention period of these quality-relevant records (result-related data) is at least 10 years. For processes, products and characteristics with special archiving (e.g. safety-relevant parts), the extended retention period of 15 years shall be observed.

The supplier shall allow FFT to inspect its records (e.g. FMEAs, SPC, defect collection cards, etc.). In special cases, FFT shall agree with the supplier on the series-accompanying delivery of test records (e.g. test certificates according to EN 10204/3.1), see *14 "(Safety) Parts subject to Documentation (“critical characteristics”)*.

The supplier shall meet specific requirements of the end customer (e.g. from IATF 16949). The records shall be disclosed upon request.

7.5. Packaging Instructions

Series deliveries shall be made in accordance with the FFT packaging instructions, for further information see *8 "Handling, Storage, Packaging, Preservation and Despatch”.*

7.6. Product Requalification

The supplier is obliged to check annually whether its deliveries comply with FFT's specifications (including dimensions, material, capabilities, legal requirements, environment). Any non-conformity from this obligation shall be agreed in writing between the supplier and FFT.

Upon request, corresponding evidence shall be provided to FFT or inspection shall be granted.

7.7. Inspection at Receipt of Goods at FFT

Upon delivery, FFT's incoming goods department shall only inspect the delivery products with regard to identity and quantity (identity check) and for clearly visible external transport damage. FFT will immediately give notice of any deviations in this respect. FFT shall notify the supplier immediately of any quality defects in the delivery as soon as they are detected in the ordinary course of business.

8. Handling, Storage, Packaging, Preservation and Despatch

The supplier shall, in order to avoid qualitative impairment, damage or loss, establish a procedure in coordination with FFT, according to which handling, storage, packaging, preservation and shipment is ensured until the intended use of products and services at FFT.

The part identification during production until dispatch shall primarily enable the identification of delivery batches and thus ensure **traceability** and exclude mix-ups.

Each container that is delivered to FFT shall be provided with a goods receipt / issue slip that is clearly visible from the outside (preferably ***VDA 4902***).

Delivery notes, accompanying documents (e.g. APZ, MDB / SD) and invoices shall be fully marked and bear the following information accordingly:

- Supplier / Manufacturer / Country of origin,
- Recipient / Place of unloading,
- Order number and position,
- Material ID-number (as stated in the order),
- Parts description (as stated in the order),
- Quantity and quantity units,
- Batch Number
- Drawings and specification numbers with revision index (if stated in the order),
- Identification of hazardous Substances according to REACh and GHS (H-/ P-phrases),
- Storage conditions
- Transportation Regulations,
- Expiry Date, in case of goods with a limited storage period,
- Processing specifications.

The supplier shall use packaging only that promotes safety and is environmentally friendly.

The products and services shall be delivered in **homogeneous batches** in clean and undamaged packaging. If FFT requires batch-related test certificates in orders or technical documents (e.g. acceptance test certificate according to DIN EN 10204 / 3.1), these shall be provided along with the delivery.

The supplier shall maintain a system for recording increased freight costs (e.g. special trips) and provide FFT with corresponding records upon request.

9. Complaints, non-conform Products

9.1. Basic Principles

If FFT detects non-conform products, the supplier will be informed immediately. There will be an immediate coordination with the supplier about return of goods / replacement delivery or rework / sorting as well as cost regulation. Internal costs for test reports will be invoiced in a timely manner. FFT shall be informed immediately in writing about causes of defects and immediate measures.

The supplier shall remedy faults at short notice and provide evidence of the effectiveness of the remedial measures. The application of the **8D methodology** is mandatory. The initial reaction (immediate action) shall be taken within **24 hours**. A deviation permit, limited to a certain number of parts or a defined delivery shall be obtained from FFT in writing, should products non-conform to specifications be due for delivery.

Rework and its procedures, which may change the characteristics of FFT products, are subject to approval via FFT Quality Engineering department.

If the supplier detects defects which could also affect deliveries already dispatched, it shall immediately inform the responsible FFT Quality Engineering department and notify any corrective measures initiated (see *9.2* "*Non-conform Products at the Supplier*").

If a timely replacement delivery is not feasible in due time, the supplier shall bear the costs for the measures necessary to ensure contractual delivery to FFT's customers (e.g. costs for sorting, special releases, production modifications, quality analyses, rework, processing, assembly, disassembly, special freight, etc.). FFT will coordinate these measures with the supplier, if possible.

However, FFT reserves the right to decide itself to take necessary measures to maintain its production and delivery obligations.

In the event of a complaint leading to a production standstill and/or production bottlenecks at FFT, the supplier undertakes to immediately sort out the non-conform delivery batch at FFT at his own expense or to replace it with faultless and clearly marked i.o. subsequent deliveries.

The particular marking shall be maintained until the accepted conclusion of the complaint (conclusion "8D") plus three deliveries.

If supply bottlenecks occur due to non-conformities with schedule or quantity, the supplier shall immediately defuse the situation using all means at his disposal. In this context, special shifts, special trips, delivery by air freight, etc. are to be considered.

If, despite the efforts of both parties to avoid/ limit damage, FFT incurs damage (of whatever nature) which is attributable to defects in the products supplied, the supplier shall be liable to pay compensation, whereby it shall accept any fault on the part of its own suppliers and/or subcontractors used by it in the production of the parts as if it were its own fault.

9.2. Non-conform Products at the Supplier

If non-conform products are found on the supplier's premises, they shall be removed from the remaining production batches. These are to be clearly declared as "non.o.k. product" and stored separately.

If non-conform products are shipped, FFT shall be informed immediately.

Deliveries with approved deviation shall be clearly marked on the delivery note and the packaging units.

9.3. Rejection

9.3.1. Possible Reasons for Rejection

Rejection of deliveries will occur in the following cases, among others:

a) Delivered products are non-conform with specifications or valid drawings.
b) Capabilities of important characteristics are not available and there is no evidence of a 100% control.
c) Initial sampling has not been made and a non-conformity agreement does not exist.

A rejection is pronounced by means of a test report.

9.3.2. Reaction to Rejections

Rejections represent a critical event that shall be responded to appropriately. FFT expects a written preliminary statement on immediate measures taken within 24 hours after receipt of a rejection. Unless otherwise agreed, the supplier shall submit a final written statement within five working days, outlining remediation measures and actions to prevent recurrence. The statement shall (unless otherwise agreed) be made by means of an "8D report". In case of doubt, FFT Sourcing department shall be consulted.

9.4. Customer Recalls

In the event of customer recalls caused by non-conform parts of the supplier, the supplier shall cooperate in the fault analysis and bear all costs incurred.

9.5. Escalation Procedure for repeat Complaints

In case of repeat complaints caused by the supplier, the escalation procedure described below shall apply.

Step 1: Supplier discussions at FFT incl. presentation of a catalogue of measures. If necessary, a visit by FFT Supplier Development to the supplier will take place at the supplier's expense.

Step 2: 100% incoming goods inspection of the subsequent 3 deliveries on the premises of FFT by employees of the supplier or by an external service company commissioned by the supplier. These activities are to be maintained until the implementation of the 0-defect target has been achieved.

Step 3: 100% outgoing goods inspection at the supplier's premises by an external service company (possibly also by FFT employees) at the supplier's expense until 2 weeks after the problem has been resolved (maximum period: 3 months).

Step 4: The supplier shall hire an external consultant to eliminate the quality problems that have arisen in his company

Step 5: Consideration for further contract awards will only take place after a successful system / process audit by the FFT Group, which will be carried out at the supplier's expense. Supplier discussions on the escalation procedures shall be recorded and signed by the supplier.

10. Maintenance

For the essential process equipment (machinery/plant), the supplier shall carry out effective, planned and comprehensive maintenance with a defined scope, time interval and corresponding documentation (history).

This also includes predictive and preventive maintenance measures according to VDI guideline 2890 and established standards/guidelines

11. Supplier Evaluation

11.1. Supplier Self Assessment

FFT requires its suppliers to perform a self assessment based on a questionnaire. This questionnaire is provided by FFT. The results of the self assessment shall serve as basis for a system and process audits to be performed by FFT when needed.

Prerequisites for inclusion in the "**List of Approved Suppliers**" by FFT are:

- Sufficient system status (certificates),
- Analysis of potential with positive results, if required,
- Successful system- / process audit, if needed.

11.2. Supplier Audits

The supplier shall allow FFT and - if required - its customers to conduct audits by arrangement and to inspect the existing documents (specifications) and records (evidence).

11.2.1. System Audits

System audits are carried out by FFT to qualify the supplier's quality management on the basis of *VDA, volume 6.1 "QM-system audit*". In special cases customer-specific questionnaires from FFT will be used.

In general, a system/process audit is carried out:

- for new suppliers, if required,
- after major changes (QM system, production site, etc.),

- when deterioration of delivered goods occur,
- to confirm the effectiveness of the QM system (repeated-, follow-up audits),
- after a 3 year period, if needed (key suppliers).

Audit intervals: A classification as a "B" or "C" supplier makes a repeat / follow-up audit necessary after a specified period of time for completion of the measures. In addition, audit frequencies are determined depending on the situation.

FFT may waive a system / process audit under one of the following conditions:

- Copy of a valid certificate (e.g. EN ISO 9001) of an accredited association,
- Copy of a complete audit report including the catalogue of the agreed measures of important customers and/or certifiers.

Certificates and audit reports shall not be older than 3 years. To avoid inquiries, current certificates and audit reports shall be sent to FFT Sourcing department.

11.2.2. Procedures-, Process- and Product Audits

Procedures-/ Process- and Product Audits are usually performed:

- when introducing new or modified procedures,
- for quality improvement,
- after deterioration of the delivery quality.

The evaluation system based on *VDA, Volume 6.3 "Process audit"* is used for this purpose.

The audit results are communicated to the supplier.

11.3. Evaluation of the Delivery Performance of Suppliers and Key Suppliers

In accordance with *VDA Volume 2 "Quality Assurance of Deliveries*", a comprehensive evaluation system is used to determine the ongoing delivery performance of suppliers selected by FFT, which includes the following performance criteria, among others:

- **Supply quality** (ppm),
- **Supplier reliability** (deadlines, quantity – target 100%).

On the basis of the determined quality index (QI), a classification is made in 3 categories:

Category	**QI**
A-Supplier	min. 95
B-Supplier	below 95 – 80
C-Supplier	below 80

For suppliers classified in category "C", FFT will review whether the business relationship is maintained after receiving a detailed statement on quality improvement (catalog of measures).

The evaluation of the quality/delivery performance is carried out at regular intervals and the result is communicated to the supplier at least 1x per year.

If required, the evaluation system can be inspected by the supplier.

Key suppliers are of particular importance for ensuring FFT's current and future supply capability.

These suppliers are additionally assessed internally by a cross-functional team coordinated by the FFT Sourcing department according to the following criteria, among others:

- cooperation / communication,
- strategic orientation,

- innovation,
- delivery reliability.

11.4. B- and C-Suppliers

B and C suppliers shall submit an action plan to FFT in a timely manner and shall complete it within two months. For C-suppliers, the completion of the measures can be verified by an FFT audit.

12. Agreements concerning Quality Assurance

FFT reserves the rights to set down in writing agreements with key customers regarding organization, processes, communication, and rules of conduct ("QSV" quality assurance contract).

13. Product Assurance / Product Liability

Shortcomings in product safety may lead in **liability claims against the supplier**. Therefore the supplier's QM system shall be aligned in such a manner that possible non-conformities can reliably be prevented.

Relevant criteria for this include for example:

- A distinct awareness of quality on the part of all employees,
- Product safety from development to series product,
- Timely detection of non-conform products,
- Thorough documentation of quality data,
- Traceability of materials,
- Ensuring that employees are made aware of the effect of product defects (product liability),
- Verifying the availability of insurance, if necessary.

14. (Safety) Parts subject to Documentation ("critical characteristics")

As regards (safety) parts subject to documentation the supplier shall keep records of the quality assurance measures taken and the results of quality tests. The supplier shall observe these quality assurance guidelines for suppliers of FFT as well as the VDA, volume 1 "documentation and archiving".

Qualification specifications and evidences (documents and records) of the supplier shall be kept for at least 15 years after the end of production

15. Environmental Management and Occupational Safety

FFT expects its suppliers to install an Environmental Management and Occupational Safety System in which they assess the extent to which their own or third-party development and manufacturing processes are environmentally compatible and meet the requirements of occupational health and safety. This comprises the obligation to continuously review the possibilities to procure, use or produce environmentally compatible and resource-saving products under sustainability aspects, to adapt production processes to the state of the art, to minimize the consumption of resources (soil, water, air, energy, raw materials) and to implement environmentally compatible packaging, logistics and transport concepts.

<u>Environmental laws to be observed with their regulations (among others):</u>

- Federal Control of Pollution Act (Germany: "BImSchG"),
- Ordinance of Hazardous Substances (Germany: "GefStoffV"),

- Law on Chemical Substances (Germany: “ChemG”),
- Closed Substance Cycle- and Waste avoiding Management Act (Germany: “KrW-/AbfG”),
- REACh Regulations,
- Environmental Liability Law (Germany: “UmweltHG”),
- Federal Water Act (Germany: “WHG”),
- RoHS (industry-specific requirement),
- Compliance with the Hong Kong Convention (industry-specific requirement)

In general:

- further customer-specific requirements as well as market and country-specific requirements, laws and regulation.

These are to be regarded as minimum requirements only. In addition, it is the supplier's responsibility to inform himself about country- and industry-specific laws in the case of production abroad and to take them into account.

The obligation to minimize the use of resources over the entire parts’ life cycle is of the utmost importance.

16. Foreign Trade Law

As an international group of companies, FFT is subject to numerous international, national and local foreign trade and commercial law regulations and FFT expects its suppliers to support FFT in complying with said regulations.

The contract fulfillment by FFT is subject to the proviso that such performance is not opposed by any obstacle or hindrance based on applicable regulations of foreign trade or commercial law.

All FFT suppliers shall comply with all requirements of the applicable international, national and local foreign trade and commercial law regulations, including but not limited to sanctions and embargo regulations.

16.1. Customs Tariff Number, Origin of Goods & Certificates

16.1.1. Customs tariff number / HS code

The supplier shall identify the current customs tariff number (minimum 6-digit HS Code) of each commodity in its quotation.

16.1.2. Non-preferential origin

The supplier shall note the non-preferential origin separately for each commodity on its commercial documents, in particular on quotations and commercial invoices. Upon request, the supplier shall provide a certificate of origin that certifies the non-preferential origin of the commodities. The supplier shall provide said certifications at its own expense.

16.1.3. Preferential origin

16.1.3.1. Orders where the FFT consignee is located in the European Union:

Suppliers located in a third country with which the European Union has concluded a free trade agreement shall bindingly state for each commodity whether the commodity to be delivered can be imported into the European Union with preferential treatment. Suppliers shall provide a preference certificate / proof of preference in the form provided for the relevant free trade agreement at their own expense with each delivery.

Unless agreed otherwise, suppliers located in the European Union shall deliver Union goods and shall prove the preferential origin by means of a “long-term supplier’s declaration for goods having preferential origin status”. The long-term supplier’s declaration shall be provided at the latest at the time of first delivery and then annually upon request. Intra-year changes shall be reported to FFT immediately by sending a long-term supplier’s declaration that has been updated correspondingly.

Long-term supplier's declaration shall be sent electronically in advance to the requesting FFT employee and to trade-compliance@freudenberg-filter.com (in case of an intra-year change exclusively to trade-compliance@freudenberg-filter.com).

16.1.3.2. Orders where the FFT consignee is located outside of the European Union:

Suppliers shall provide binding information as to whether the commodity to be delivered can be imported into the respective country of destination with preferential treatment. Such information shall be provided together with the offer. Suppliers shall make the required supporting documents / proof available at their own expense at the latest with the first delivery, and then upon corresponding request.

16.1.4. Free Deliveries

In case of a free delivery, suppliers shall submit a pro forma invoice with a value statement reflecting a fair market price. The invoices shall contain a note "For Customs Purpose Only" as well as the reason for the free delivery (e.g. free sample shipment).

16.2. Export Controls

All suppliers shall inform FFT of any prohibitions, restrictions and license requirements resulting from foreign trade or export control regulations of the respective manufacturing country and/or of the country of dispatch that concern the delivery items.

Suppliers located in the European Union shall further inform FFT of any European export and transfer restrictions that apply in connection with the delivery items. This includes, but is not limited to, the notification of the corresponding dual-use export control classification.

All suppliers shall also notify FFT as to applicability of the US (re-)export control law. If the delivery items contain US shares, the value (usual purchase price or current market price) of the US share in total as well as the applicable US export control classification according to US EAR (ECCN) or ITAR (International Traffic in Arms Regulation) (USML (United States Munitions List) category) shall be reported.

Information provided in relation to the delivery items shall be kept up-to-date and suppliers shall inform FFT immediately without specific request about any changes, for example due to technical changes to the delivery items or because of a revised legislation.

17. Sustainability and social Responsibility

The Freudenberg Filtration Technologies Group is subject to the high **ethical and social standards** of the Freudenberg Group and is a signatory to the UN Global Compact.

The supplier/contractual partner shall undertake to act in accordance with the principles of the Freudenberg Group's Guidelines & Standards as well as to comply with all legal requirements and guidelines relating to occupational health and safety, social responsibility, equal opportunities, protection of minorities, child labor, sexual equality, freedom of opinion, freedom of association, etc.

We expect our suppliers to also comply with these standards.

In addition, the requirements and documentation obligations of the German Supplier Chain Obligations Act (Germany: Lieferantenkettensorgfaltspflichtgesetz) shall be complied with.

Guiding principles, guidelines (specifically the "Business Principles") can be found on the website www.freudenberg.de / "Company".

18. Conflict Minerals

The products delivered to FFT shall not contain any "conflict minerals" as defined by the Dodd-Frank Act Sec 1502. The supplier shall provide declarations in this regard upon request at its own expense.

19. Responsible handling of data

Data exchanged in the course of a business relationship is subject to confidential handling and shall not be made accessible to unauthorized third parties.

The supplier shall ensure through appropriate organization that data does not reach third parties without authorization.

If customer-relevant data is exchanged in the automotive industry, in particular but not exclusively test results and customer drawings, the organization shall be structured in accordance with TISAX (Trusted Information Security Assessment Exchange, http://enx.com/tisax/).

Certification of the supplier in accordance with the TISAX guidelines is aimed for.

20. Annex

20.1. Referenced documents

[1] ISO/IEC 27000:2018
[2] General Terms & Conditions of Purchase

20.2. List of abbreviations

Terms / Abbreviation	Explanation
FFT	Freudenberg Filtration Technologies Group
MAQMSR	Minimum Automotive Quality Management-System Requirements
QM-System	Quality Management System
PPA	Production Process and Product Approval
PPAP	Production Part Approval Process
PPV	Product and Process Validation
PSW	Part Submission Warrant
TISAX	Trusted Information Security Assessment Exchange
VDA	Verband der Automobilindustrie (German association of the automotive industry

20.3. Literature References

- DIN EN ISO 9001 “Quality Management Systems – Requirements“
- DIN EN ISO 14001 „Environmental Management Systems – Requirements and Instructions for Implementation“
- Technical Specification IATF 16949
  “Quality management system requirements for automotive production and relevant service parts organizations“
- AIAG - Production Part Approval Procedure (PPAP)
- VDA Publications
  - Volume 1 Documentation and Archiving
  - Volume 2 Quality Assurance of Deliveries
  - Volume 6.1 QM-System audit
  - Volume 6.3 Process audit
  - Volume 7 Procedures for Quality Data Messages
  - Volume Product Design – Process Description „Particular Characteristics“