Supplier Quality Guideline

Introduction

The suppliers of Freudenberg Sealing Technologies and the companies associated with it (hereinafter: FST) are an integral part of our process chain. The requirements to the suppliers' quality management system resulting from this form the basis of cooperation between FST and their suppliers and specify the technical and organisational framework conditions and processes between FST and the supplier that are required to achieve the shared objectives. They are part of the quality policy and integrated into the overall strategy of FST. The compliance with customer expectations without reservation and consistent pursuing of a zero defect objective, connected to a defect-free delivery quality, are particularly observed here. They describe the minimum requirements to the suppliers' management system regarding quality assurance. Specific descriptions serve as explanations.

The respective valid version has been published at www.fst.com.

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Revision Status

Revision	Date	Change Marker	Approved by	Function
00	17/02/2009	Overall Review & Modification with Process-Focus acc. to TS16949	Dr. Kalthoff	Head of Corporate Procurement
01	05/05/2011	Change corporate name, Change responsibility	Albrecht	Head of Corporate Procurement
02	07/01/2013	add § 2.1 a, para 2 change § 7.2	Albrecht	Head of Corporate Procurement
02.1	01/01/2016	Formal Changes Pages 1 to 3	Albrecht	Vice President Purchasing EUROPE
03	01/02/2018	Modification acc. to IATF 16949	Albrecht	Vice President Purchasing EUROPE

Confirmation

Supplier Quality Guideline

We hereby confirm receipt and recognition of this "Supplier Quality Guideline“, applicable to all procurement scopes described for
Freudenberg Sealing Technologies GmbH & Co. KG and its affiliated companies.

Company: _____

Address: _____
(company stamp)

_____

legally binding
Signature
& date: _____ _____

Name and function
of the undersigned _____ _____

If applicable and agreed by mutual consent, comments and/or changes are enclosed in

Appendix as of: _____

Rev. 03

Please complete this confirmation completely and upload a signed version (if applicable including annex) **to your supplier profile on the FST supplier portal at www.fst.com.**

The Supplier Quality Guideline is issued in German and English. Translations into other languages only serve explanations and are not contractually binding. In doubt, the German version applies.
This "Supplier Quality Guideline Quality directive for suppliers" shall remain the property of Freudenberg Sealing Technologies. The supplier shall have the right to draw up copies for his own use.

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1. Objective

This **Quality Guideline for suppliers** provides for the essential quality requirements for all services and/or products that are rendered and/or delivered for Freudenberg Sealing Technologies and their affiliated companies (hereinafter: FST).

The items listed do not limit the relevant rules, such as ISO 9001 and IATF 16949 as amended.

2. Responsibility, scope of application

2.1 Contact

FST-Corporate Procurement (hereinafter: CP) is the negotiations partner of the suppliers for all contractual agreements. Contacts with other specialist departments are coordinated by CP.

2.2 Scope of Validity

The "Supplier Quality Guideline" applies to all externally provided processes, products or services that influence performance of the customer requirements.

3. Quality policy and quality objectives

3.1 Supplier's quality management system

a)
Suppliers of the scopes named in 2.2 commit to permanent application of a certified quality management system according to the current version status of the IATF 16949.

Non-producing suppliers, such as trade organisations, importers, sales and representation agencies, etc. must render proof to FST that the subsupplier producing and/or processing the product for FST uses a certified quality management system **according to the current revision status of the IATF 16949.**

All changes to the certification status and special status notifications according to IATF 16949 must be disclosed to CP without prompting.

The supplier ensures by suitable corporate organisation that no damage arises to third-party property, specifically in connection with product responsibility for the delivered products. The supplier may train and appoint an employee as product safety officer for this. The supplier shall render proof to CP about suitable corporate organisation, e.g., by disclosing the product safety officer. FST shall provide an overview of tasks and knowledge of the product safety officer on request.

b)
The supplier is committed to the zero-defect objective and must continually improve his performance in this direction. He is obliged to continuous improvement (KVP).
The quality targets specified by FST (e.g. PPM) are deemed maximum values. Individual quality agreements can be made between FST and the supplier within these maximum values. This does not relieve the supplier from his obligation to reaching the zero error objective.
The supplier commits to contribution to quality-improving programmes with the specialist departments of FST.

- The supplier's quality management system must be aligned with prevention instead of discovery of defects.

- Risks or deviations must be recognised early on by using error avoidance and analysis methods (FMEA, SPC, DoE, etc.), and the corresponding error avoidance methods must be implemented without delay.

c)
The supplier shall be responsible for using suitable measuring and test devices (including test software). All measuring and test devices are to be released by a test medium monitoring system; the capability must be documented in a measuring system analysis.
The test medium monitoring and its organisational control generally must be performed with a suitable system. Where FST provides test equipment to the supplier, it must be included in the supplier's test equipment monitoring or maintenance system.

The corresponding values and specifications of the QS 9000 reference manual Measurement System Analysis "MSA" and the current DIN ISO standards 1319 part 1, 10012 and 17025 shall apply regarding repeatability and comparability.

Proof of the calibration status must be marked as follows at all measuring and test devices:

- Test equipment number
- Test equipment status
- Next inspection date

3.2 Quality management of the subsupplier

The supplier shall commit his subsuppliers to compliance with the obligations assumed by him from this contract.
The supplier is fully responsible for securing the quality of subsuppliers. In selection of subsuppliers, the supplier must ensure the quality capacity of the subsuppliers in the form of a quality audit purs. to ISO9001: according to the current revision status. The supplier is asked to only use such subsuppliers when awarding subcontracts who are verifiably certified by a recognised certification company or who are certified by the supplier as a second party where possible.
FST reserves the right to demand proof of a quality management system from subsuppliers.

The capability indices demanded by FST as described in item 4.9 b) are binding upon the subsupplier.

3.3 Audit (at the supplier)

The term of released supplier generally refers to the certified application area of the certificate that was released by FST, or the supplier's audited site released by the management certificate of FST.
a)
FST shall have the right to determine in an audit whether the quality assurance measures of the supplier warrant compliance with the customer requirements. The audit can be performed as a system, process or product audit and must be agreed on in time before performance is planned. On demand, appropriate limitations of the supplier are agreed on in a contract to secure his operational secrets.

b)
The supplier commits to auditing his subsupplier upon request by FST.
FST reserves the right to perform an audit at the subsupplier's site in coordination with the supplier.

3.4 Documentation, information

a)
The supplier produces, inspects and delivers according to the last valid documents. Documents from FST and its customers are to be treated as business secrets. Passing on of documents to third parties generally is not admissible. Passing on shall require the written consent of FST. The archiving period for documents with special features is 15 years after the end of serial production at FST. The supplier shall grant FST insight in such documents on request. Documents shall be destroyed at the end of the storage period so that they cannot be reconstructed anymore.

b)
The supplier must ensure throughout serial production that only such products are delivered to FST that fully comply with the specifications and other technical documents as well as the agreed function of the delivered products.

The supplier warrants full implementation and application of the agreed inspections according to the serial inspection plans and other inspection specifications and instructions. FST reserves the right to specify the test scopes bindingly in particular incidences in case of severe deviations, interferences or risks to achieve the required quality without this leading to any additional costs for FST. This shall specifically apply if non-compliance of the capability values (process capability) shows any interferences, complaints and failures on the side of FST's customer that originate in the product delivered by the supplier.

c)
If it becomes clear that agreements entered into (e.g. on quality features, appointments, delivered quantity) cannot be complied with, the supplier is obliged to inform FST without delay. The process-related data and facts must be disclosed accordingly. Deviations of the actual condition from the target condition of the products (quality loss) must be reported to FST within 24 hours, including countermeasures.

d)
Any change of production methods, materials, parts of the supplier for the products, relocation of production sites, changes of procedures or facilities to inspect the products or other quality assurance measures must be reported to FST for review in time before performance and approved by FST.

All changes to the product and in the process chain must be documented in a product life cycle (e.g. according to VDA volume 2 "Securing the quality of deliveries"). The product life cycle must be documented to FST on request.

A production release or PPAP sampling procedure generally must be conducted. The acceptance level is to be coordinated with the quality department of the procuring FST company.

e)
Only subsuppliers released or nominated by FST must be used for procurement of customer-specific raw materials and contracted services.

4. Advanced quality planning process, serial production, traceability, identification and indication of defects

4.1 Requirement

Suitable advanced quality planning methods (Qualitätsvorausplanungsmethoden; QVP) for avoiding potential errors and for continuous improvement are to be applied. All individual processes from development to serial production must be covered and mapped. The QVP must be coordinated between the relevant departments of FST and the supplier; progress must be reviewed at regular intervals. If FST does not participate in this advance planning, the supplier must do so under his own responsibility.

In the scope of initial sampling, a manufacturability assessment or QVP must be conducted upon request of FST.

Further details on this must be coordinated with the quality department of the procuring company.

4.2 Producibility assessment

The produciblility assessment must document that a product can be produced according to the drawing and specification under serial conditions.

The produciblility assessment must be performed under the responsibility of the supplier and in coordination with the procuring FST company for new or changed products and specifications, production and process changes or in case of larger volume increases.

Specifically, indicated tolerances must be viewed under statistic aspects as well as function and strain of the product. Furthermore, a statement must be made on whether the supplier's capacity permits delivery of the planned numbers of parts and compliance with the intended dates and whether the chosen packaging ensures maintenance of product quality in transport and storage.

Suitable measures must be taken for this, such as:

- Design of Experiments (DoE)
- Failure mode and effects analysis (FMEA)
- Process-capability analysis (SPC)
- Check list produciblility assessment
- Run at rate capacity review

Suggestions of the supplier for sensible changes and supplements of drawings and specifications are implemented by FST and in the sense of continues improvement - where possible.

Boundary samples
Boundary samples define the quality of non-measurable properties by compilation of a visual acceptance standard. Boundary samples must be made of the released serial production process and marked accordingly as threshold samples. The respective change status and usability of the Boundary samples must be ensured by the supplier.

4.3 Process Flow Chart
The supplier commits to drawing up a process flow chart in the form of a graphical description of the entire production process in which all work steps, automatic requests and test points are marked and secured with indications of potential problems in the FMEA and the control plan. The material marking and material flow must be specified so that processing of incorrect materials or products is excluded (see the enclosed sample process flow chart).

4.4 System FMEA
FST commits its suppliers to systematic execution of FMEAs for products for early recognition and avoidance of errors in product and process. The system FMEAs are to be updated continually regarding the development and process changes as well as product use. The product features and process parameters recognised as critical by the system FMEAs, specifically defined and agreed special features, must be assumed and marked in the inspection plan by the supplier as essential features. Examples for reaching objectives supported by the use of system FMEAs include:

- Shorter development processes
- Lower-interference serial startup
- Economically efficient production
- Increase of functional safety
- Increase of product reliability
- Reduction of warranty and goodwill costs
- Improved internal communication

Further details must be coordinated with the quality department of the procuring company if required.

4.5 Production control plan
In the production control plan, instructions for product and production process control, specifically for the special (critical and significant) features, must be defined, continually applied and updated.

A production control plan must be applied by the supplier during the entire service life of a product. It must be kept up to date at all times, both in pre-series and in the serial production phase; on special request, this shall include the prototype phase as well.
The specifications according to IATF 16949 must be complied with.

4.6 Tools, facilities, spare parts
The supplier must plan procurement of new or changed tools, meters and facilities so that timely supply to FST with products in compliance with the specifications is warranted. Tools and production media must be kept in the condition of a specifications-compliant product manufacture with a proper maintenance plan. Where FST provides production equipment to the supplier, it must be included in the supplier's production equipment monitoring or maintenance.

The supplier commits to continue to supply FST with the ordered products for the production of spare parts for the customers of FST after serial delivery. Unless specified differently by FST, this delivery obligation shall continue for a period of 15 calendar years from FST's information on discontinuation of serial production. The supplier shall be obliged to maintain all tools, devices and other equipment required for defect-free production of the product in a condition to warrant restart of production un short notice for FST for the period of 15 years without charging any additional fees for this. Spare parts and replacment products must be produced with genuine tools.

4.7 Packaging planning

Effects of packaging selection to the product quality must be reviewed. Packaging and transport tests must be performed if necessary to warrant ensuring even product quality.

4.8 Traceability, identification

a)
Traceability of the delivered products throughout the process chain, including input material, must be ensured without gaps by the supplier in the scope of underlying cause analysis, specifically to limit damaged or defective stock in circulation and transport. Immediate 100% inspection or sorting inspection of these stocks must be performed by the supplier.

b)
Labels for outer and individual packagings must be coordinated with the specialist department of the procuring company.

Unless otherwise agreed, the following minimum information applies for marking the outer and unit packaging:

- Customer item no.
- Customer revision status
- Item designation
- Fill volume/quantity unit
- Supplier name
- Material number of the supplier
- Either production, shipping or expiration date
- Batch cr. if necessary

Additional information in case of changes in signal colour: "Attention: New revision status".

Alternative material must be clearly marked as such.

The production status and inspection decision must be recognisable at all production batches and production partial batches. Different batches must be separated; delivery sorted by batch must be warranted.

4.9 Inspections, complaints and measures

a)
The supplier is responsible for specifying a test concept under his own responsibility to meet the agreed objectives and specifications.

b)
For functionally relevant, special and critical features, suitable procedures (e.g. statistic process control or manual control card process) are to be applied to document process capability across the entire production time. Unless agreed on differently, the following capability indices shall apply:

Pre-series: **Ppk ≥1.67**

Series: **Cpk ≥1.33**

Determination of these special features for the product's function and the quality of processes takes place in the advanced quality planning process. Special features are indicated in drawings, specifications and standards as such or agreed on in separate Annexes.

c)
If the required process capability is not achieved and/or if any random sample result indicates defective products, the quality must be assured with suitable test methods; the production process must be optimised accordingly in order to achieve the required capacity. The test accuracy must be increased accordingly (100% testing if necessary).

d)
In case of process interference and quality deviations, causes must be analysed, improvement measures initiated without delay and their effectiveness reviewed. Indicative problem solutions that can be understood by FST must be applied. The minimum demand is a report according to the 8-D system.
FST must be informed without delay of any subsequently recognised deviations as well.
FST reserves the right to pass on all costs arising in connection with a complaint to the supplier.
FST shall charge € 200 per process to the supplier for the processing effort resulting from a complaint.

e)
FST limits its goods receipt inspections to the determination of compliance with quantity and identity of the contractual products based on the delivery receipt data as well as any obvious transport and packaging damage. Any defects found shall be reported by FST without delay in the scope of proper business processes; failed parts shall be provided upon the supplier's request. In this respect, the supplier shall waive the objection of delayed complaint about defects.

f)
In case of defective deliveries, the supplier must take measures without delay to limit the damage and remove errors permanently (replacement deliveries, sorting or rework). Reworked and/or sorted product deliveries shall require the written release of the responsible FST department. The delivery of goods must be marked specifically, marking must be applied clearly visibly to the respective goods delivery.

5. Supply chain

5.1 Quality documents and specifications

Delivery dates must be complied with 100%. The planning information for this must be coordinated with the procurement offices within FST.

FST provides specifications for production/rendering of services. In the scope of its document inspection, the supplier must report any defective or missing documents that may cause impairment of defect-free or timely product production or delivery and rendering of services to FST without delay.

The supplier must record the costs for additional freight and report them to FST.

Production log/batch-related test certificates such as acceptance test certificate according to DIN EN 10204 3.1, must be archived by the supplier. It must be ensured that the acceptance test certificates can be called within one working day. On request, these test certificates must be enclosed with the shipping documents of the respective delivery.

5.2 Packaging and cleanliness

The packaging concept must be coordinated with FST. Suitable packaging media must be used that avoid impairment of the products and that correspond to the same safety and environmental provisions. The same applies regarding selection of suitable transport methods.

The completed products are to be delivered without any contamination, so that further processing by FST without any further measures/rework is possible. Apart from this, FST reserves the right to specify additional demands regarding cleanliness for certain items. The suppliers are asked to clarify the application of certain specified cleanliness requirements. This shall also apply to packaging media, specifically circulating containers (e.g. lattice grid boxes, small loading equipment, etc.).

5.3 Provided products

Products and packagings provided by FST must be reviewed for quantity, identity and visually recognisable damage. Defective and/or damaged deliveries must be reported to FST within 24 hours in writing. The delivery documents of the affected delivery must include information on the consumption of provided delivery objects.

6. Supplementary requirements

6.1 Trainings

Employees of the supplier must be qualified for performance of their own tasks and, if required, specifically trained separately for the respective production process of the product by FST with the objective of defect-free product quality. This shall also include temporary staff. For this, a further training programme must be drawn up that includes management as well.

6.2 Emergency management

Interferences and events with effects on product quality, delivery date, delivery quantity, etc. must be reported to the consumers within FST at once. A copy of the report must be submitted to FST CP. A plan for immediate measures with risk assessment and ensuring parts supply must be enclosed with the interference message within 24 hours. The supplier designates a single qualified contact who is available to FST purchasing, without limitation if required according to the severity of the case. The supplier's management must be integrated into processing.

In particularly severe cases (e.g. field failures at the sites of customers of FST), special problem-solving techniques may need to be applied under involvement of an external service provider upon request of FST.
FST reserves the right to apply special status classifications (e.g. supplier stop for new business,controlled shipping, etc.) to the supplier in full according to the originator principle.
These may include:

Controlled Shipping Level 1 (CS-1)

Description:

The CS-1 status triggered by FST commits the suppliers to regular inspection and control processes for immediate putting into effect of an **additional** inspection, control and sorting process for a specific and/or specified non-compliance or deviation, along with a detailed failure cause analysis at the supplier's site. The CS-1 process is performed by the supplier's staff members who were trained accordingly for the measures

Prerequisites for CS-1 status:

- Repeated errors with safety-relevant risks at installation and mounting, function, etc.
- Insufficient process and product control to avoid non-compliance
- Quality incidents in the field (warranty, customer satisfaction)
- Production standstill at FST or the end customer's site

Controlled Shipping Level 2 (CS-2)

Description:

In the CS-2 process, an additional inspection, control and sorting process takes place by third parties charged by FST at concurrent continuation of the CS-1 process. Additionally, the current measures in the form of process and/or product audits are reviewed for effectiveness by FST or a third party designated by FST.

Prerequisites for CS-2 status:

- All prerequisites for CS-1 status
- Repetition danger and/or failure of the CS-1 process

The supplier is obliged to apply the respective standard in full across the agreed period; all costs arising for FST in this respect shall be at the supplier's expense as well.

7. SupplierQualification

FST generally reserves the right to asses and classify the supplier with the system, product and process assessment methods specified by FST. This is independent of the supplier's certification status

7.1 Supplier selection & release

Generally, a delivery contract for production materials is only entered into with the suppliers who have achieved the status "released without limitation".
In case of non-performance, the supplier commits to performing improvement or removal measures to achieve this status within 3 months.

7.2 Continuous supplier development & performance evaluation

FST performs regular performance assessments of his suppliers based on a process-oriented evalutation system.

The following criteria are assessed in this context:

Block 1 – Quality

- PPM and/or compliance/non-compliance of the delivery
- Number of complaints
- Special status due to quality problems
- Certifications

Block 2 – Delivery compliance

- Compliance with delivered amount vs. agreed ordered amount
- Compliance with delivery date vs. agreed date
- Special status due to delivery matters

Block 3 –Service

among others

- Cost conduct (TCO = Total Cost of Ownership)
- Innovation & engineering
- Cooperation, reliability, special freight costs

Performance assessment takes place in the steps A – B – C. Suppliers with a classification of B and C are obliged to initiate improvement measures to achieve status "A". FST reserves the right to take on-site measures with the supplier's support in the scope of his supplier development.

All "B" and "C" suppliers are obliged to submit a measurement plan e to improve the situation. If this is not effective in a specific period of time, FST will develop an escalation stage plan with the supplier.

Suppliers with the classification "C" are put into the status "07 New Business Hold" until effective implementation of the initiated and released measures and thus locked for new products.

The objective of FST is permanently only working with suppliers of classification "A".

8. Initial sampling

8.1 Requirements

Initial sampling for release under serial conditions must be performed under serial conditions based on the last drawing and/or specification valid or released by FST.
Initial samples must be produced completely with serial operating equipment under serial conditions. Initial sampling is required in the following cases:

- New product
- Repeated sampling
- Changes to the product design
- Changes to material/contents
- Changes to the production process
- Use of new tools and tool parts
- Use of new subsuppliers/contracted processors
- Relocation of the production sites
- Interruption of production by more than one year
- After delivery stop due to massive quality problems

The products submitted for acceptance must be taken from a representative production run. The following applies to sampling:

a)
Sampling for products for regularly recurring deliveries (serial deliveries) must comprise at least a production volume of 300 parts and a production run of between one hour and three shifts.

b)
When sampling for project-specific productions at low scopes (e.g. individual production, small amounts, etc.), the initial sampling volume must correspond to the delivery volume of the first delivery lot.
Initial sampling in the scope of a run-at-rate production run must be striven for by the supplier.

FST reviews the product at the required scope before serial production commences and grants release to the supplier, if necessary under consideration of requirements.
The machine capability index and/or the process capability index for agreed characteristics must be indicated for the production process and product release.

8.2 Submission stage according to PPAP or PPF

Generally, the supplier must perform initial sampling according to PPAP submission stage 3 or PPF submission stage 2 if nothing else is agreed. The supplier performs its own internal release independently of the submission stage and documents the results for all requirements. FST reserves the right to request the sampling documents of the supplier on demand.

The PPAP or PPF evidence must be marked accordingly as such and delivered to FST separately. Initial sampling according to the PPAP-procedure (Production Part Approval Process) is subject to the rules according to the QS 9000 reference manual as amended from time to time. Initial sampling according to the PPF procedure (production process and product release) is subject to the VDA, volume 2 as amended from time to time.

FST expressly reserves sampling according to submission level 5 at the supplier's site in coordination with the supplier in special cases.

8.3 Other samples

Naming and definition of the different sample types are provided for in the standard DIN 55 350, part 15. Generally, the samples to be delivered to FST are delivered under indication of their designation (e.g. test samples) as separate deliveries to the requesting specialist department of FST.

8.4 Material data acquisition

Material data acquisition is part of sampling. The supplier enters the required information into the IMDS database (international material data system) and provides them to FST free of charge. Furthermore, the supplier must submit a concept for disposal or reuse on the orderer's request.

8.5 Requalification test

A requalification test must be conducted by the supplier. If this requalification test leads to any deviation from the release status, the results, incl. the current process capabilities, must be reported to FST. Documentation of the results takes place based on the valid EMPB documents.

9. Contractual agreements

9.1 Purchasing conditions

The FST purchasing conditions (publishes on www.fst.com) valid at the time the order is placed shall apply to all procurement processes according to the scope of application.

The supplier accepts these conditions bindingly with acceptance of the order. Rules deviating from these conditions shall only commit FST if recognised in writing by FST.

9.2 Warranty and product liability
The rules on warranty and product liability are indicated in the purchasing conditions. Warranty agreements exceeding the purchasing conditions can be agreed on additionally.

The supplier ensures that his products comply with the quality requirements listed in the product specifications without limitation. It shall warrant this at least for the term of the statutory period of the receiving country. This period cannot be reduced by contractual agreements.
The supplier is obligated to take out an appropriate product liability insurance.

9.3 Patents or other industrial property rights
If any co-development of the supplier leads to any invention that can be protected by patent or property right, FST must be informed without delay and before the corresponding application and allowed to participate in the invention that can be protected under patent or property rights upon coordination. If required, a separate development agreement is entered into between the contracting partners.

9.4 Confidentiality
The contracting parties commit to treating all operations-internal information confidentially. If required,. a separate non-disclosure agreement is entered into between the contracting partners.

9.5. Other contractual agreements
Any other contractual agreements beyond the quality directive shall not be affected.

10. Observation of Laws and Provisions

Declaration of conformity
The supplier represents that he observes all applicable laws and provisions in the production of goods and rendering of services, including, but not limited to the areas of machinery safety, chemicals and hazardous substance law, environmental protection and work protection.

All purchased parts and substances used for the contractual object in the supplier's production must meet the respective applicable statutory requirements in the country of production and or the country of performance of the contract.

Additionally, all substances and substance groups pursuant to VDA 232-101 "List of substances subject to mandatory declaration" must be indicated in the initial sample test report where they are present in or can be released by the products. With a reference to the "End-of-Life-Vehicle" directive of the European Union (EU), the supplier also commits to entering all substances and substance groups into the IMDS database.

If applicable, the directives of AIAG for securing special production processes (CQI 9 - Heat Treatment Assessment, CQI 11 - Plating System Assessment and CQI 12 - Coating System Assessment) must be ensured by the supplier. Assessments regularly must be performed in the scope of internal audits. The results of these audits must be made available to FST on request.

The supplier shall specifically observe prohibitions in the production, processing and use of certain substances, such as:

- **ROHS** (EG directive 2011/65/EU: "Restriction of the use of certain hazardous substances in electrical and electronic equipment"), as well as the respective current implementation into national law;

- **ELV** (directive 2000/53/EC "Old car directive“), as well as the respective current implementation in national law.

The supplier recognises that any violations of applicable laws and provisions, specifically regarding substance prohibitions and restrictions, will cause a deficit in the goods delivered or services rendered. The supplier shall release FST from all third-party claims, expenses, cots and damage arising in the scope of such violation by the supplier.

11REACH declaration of conformity

The supplier recognises that FST as the producer is a "Downstream User" in the sense of REACH and warrants that all REACH provisions that REACH expressly imposes on the supplier or conducts required regarding REACH for FST to process, sell or distribute the corresponding products in the EU are complied with. This shall specifically include: (a) Advance registration, registration or approval of chemical substances or preparations at the scope required by the law, (b) implementation of internal organisational measures that document REACH conformity, (c) ensuring that any use of chemical substances or preparations in products (including packaging material) that FST or a customer of FST has indicated/reported to the supplier are covered by the respective (advance) registration or approval, (d) report at once if a substance or preparation that was registered in advance should not or cannot be finally registered within the corresponding transfer period and (e) not selling any products of any kind that contain prohibited substances of very high concern (SVHC) ((a) to (e) together: "Warranties").

The supplier also accepts that violations against the above warranties will cause a defect of the substance, preparation or other product. The supplier shall release FST from any claims, expenses, costs and damage caused by the supplier due to violation of the above warranties and support FST in enforcing them at its own expense.

12. Glossary of terms *(sorted alphabetically)*

APQP	Advanced Product Quality Planning
CP	Corporate Procurement
CS	Controlled Shipping
DoE	(Design of Experiments)
EMPB	(Initial sampling test report)
FST	Freudenberg Sealing Technologies
FMEA	(Failure Mode and Effects Analysis)
IMDS	(International Material Data System)
KLT	KLT(SLE small loading equipment)
KVP	Continuous improvement process
LC	Lead Centre
MSA	Measurement System Analysis
PPAP	(Production Part Approval Process)
PPP	production process and product release)
PPM	Parts Per Million
AQPM	Qualitätsvorausplanungsmethoden (advance Quality planning methods
SPC	(Statistic Process Control)
TS	Technical Specification
VDA	Verband der Automobilindustrie (German Association of the Automotive Industry)

13. Annexes and Literature

13.1 Statement on the produciblility assessment (APQP)

ÜBEREINSTIMMUNGSERKLÄRUNG ZUR HERSTELLBARKEIT

Kunde: GM Datum: _____

Teilenummer: NUMBER Teilename NAME

Herstellbarkeitsüberlegungen

Unser Produktqualitätsplanungsteam hat die folgenden Fragen berücksichtigt und, soweit möglich, alle Aspekte bei der Durchführung der Herstellbarkeitsbewertung berücksichtigt. Die zur Verfügung stehenden Zeichnungen und/oder Spezifikationen wurden als Grundlage der Buerteilung verwendet. Alle ,,Nein" Antworten werden mit beigelegten Anmerkungen erläutert, die unsere Problembereiche oder vorgeschlagene Änderungen darlegen, um es uns zu ermöglichen, die spezifizierten Anforderungen zu erfüllen.

Ja	Nein	Überlegungen
		Liegen für das Produkt eine Produktzeichnung und mitgeltenden Spezifikationen vor?
		Ist das Produkt angemessen beschrieben (Anforderungen bzgl. Anwendung usw.) und eine Herstellbarkeitsbewertung durchzuführen?
		Sind die technischen Leistungsspezifikationen, wie beschrieben, erfüllbar?
		Ist das Produkt gemäß den auf den Zeichnungen vorgegebenen Toleranzen herstellbar?
		Kann das Produkt mit den geforderten Cpk-Werten hergestellt werden?
		Ist eine angemessene Produktionskapazität zur Herstellung der Teile vorhanden?
		Erlaubt der Entwurf den Einsatz effizienter Handhabungseinrichtungen?
		Kann das Produkt hergestellt werden ohne, daß folgende Maßnahmen in ungewöhnlicher Weise auftreten?
		- Kosten für Produktionsmittel?
		- Kosten für Werkzeuge?
		- Alternative Fertigungsmethoden?
		Wird Statistiche Prozeßlenkung für das Produkt gefordert?
		Ist die Statistische Prozeßlenkung an vergleichbaren Produkten verwendet worden?
		Wo die Statistische Prozeßlenkung an vergleichbaren Produkten verwendet wurde:
		- Sind die Prozesse statistisch beherrscht und stabil?
		- Sind die Cpk-Werte größer 1.33?

Schlußfolgerung

	Herstellbar	Produkt kann gemäß Spezifikation ohne Änderungen hergestellt werden.
	Herstellbar	Änderungen sind erforderlich (Siehe Anlage.)
	Nicht herstellbar	Designänderungen sind zur Produktion der Produkte gemäß Spezifikation notwendig.

Unterschriften

Teammitglied/Position/Datum	Teammitglied/Position/Datum
Teammitglied/Position/Datum	Teammitglied/Position/Datum
Teammitglied/Position/Datum	Teammitglied/Position/Datum

13.2 Process schedule template

PROZESSABLAUFPLAN

Produkt Programm _____ Datum _____ Änderungsstand _____

Lieferant _____ Artikelname _____

Lieferant Ort _____ Artikelnummer _____

Legende:

○ Prozess ⇨ Transport □ Prüfung D Verzug ▽ Lager

Prozess- oder Ereignisbeschreibung

Prozessschritt:	Graphische Darstellung:	Prozessergebnis:

13.3 Literature

- Part Submission Warrant (PSW) (according to the current issue of the PPAP brochure)
- PPAP – Dimensional Results to the PSW (according to the current issue of the PPAP brochure)
- Cover sheet initial sample test report VDA (according to the valid version of VDA volume 2)
- Form sheet Control Plan (control plan according to the current version of the APQP reference manual)
- Form sheet failure mode and effects analysis (FMEA, according to the current version of the APQP reference manual)
- Data sheets for the indication of contents in procured parts (according to the valid version of VDA volume 2)