

SUPPLIER MANUAL

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Preface

The Tigges Group is a globally active supplier of high-quality, innovative and reliable drawing parts and systems in the automotive and non-automotive sectors.

In order to continue to meet the ever-increasing demands of our customers for quality and flexibility in the future, we need suppliers who will face the challenges of the future together with us. With suppliers as partners, we can master this task. If all parties produce the best products at the highest technical level at market-driven costs, we can be competitive together in the long run.

The Supplier Manual serves as a guideline for stable, sustainable and high-quality cooperation. We want to build a long-term partnership with our suppliers, communicate optimally and minimise conflicts as well as additional effort and costs with clear requirements for the benefit of both parties. Our suppliers commit themselves to acceptance and active support in order to maintain these principles along the entire supply chain.

This manual summarises key points of cooperation. For the suppliers of the Tigges Group, the expectations become transparent and it helps the supplier to align its processes with these and to fulfil them.

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1 General information

1.1 Purpose

This guideline explains the quality requirements of the Tigges Group for suppliers. The quality management requirements defined in this guideline are intended to support the supplier in designing its procedures and processes in such a way, that the products and services purchased by the Tigges Group meet the specifications in all respects. The entire supplier management is defined by the Supplier Manual.

1.2 Scope

This guideline applies to all suppliers of the Tigges Group and its subsidiaries worldwide and refers to the supply of all materials, components and assemblies in the project phase, series phase and for the aftermarket. It also applies to services of any kind that have an influence on the fulfilment of customer requirements. These include, for example, development, construction, planning and calibration services as well as pre-assembly, commissioning, sorting and reworking.

The Supplier Manual is a binding document.

If individual sub-areas cannot be fulfilled by suppliers, we expect concrete information on adaptation requests so that an approach for a solution can be found together, if necessary. Special agreements must be made in writing and supplement or replace the standard set out in this Supplier Manual. If contradictions arise between the requirements of the contractual agreements, technical documents and this manual, the contractual agreements and technical documents shall take precedence.

1.3 Compliance, social responsibility

We, the Tigges Group, take responsibility for our actions by being socially, economically and ecologically responsible.

We take a stand on the following issues and expect our suppliers and subcontractors to adopt and comply with these requirements: Corruption and competition law, human rights, discrimination, environmental issues, fair operating and business practices, health protection and social responsibility.

The Tigges Group conducts its business fairly and with decency and respect. The basis for this is our Ethics and Anti-Corruption Policy, which is summarised in the Code of Conduct (<https://www.tigges-group.com/de/>).

A prerequisite for cooperation is that the supplier agrees to our Code of Conduct and acts accordingly.

Relationships with suppliers must be based on fair dealing and fair competition in terms of quality, price, communication and compliance with applicable laws and regulations.

Fair dealing means that no unfair advantage is gained through manipulation and concealment of or deception about facts, misuse of confidential information or information subject to professional law or similar practices.

In return, the Tigges Group ensures an objective basis for decision-making and equal opportunities for its potential suppliers.

1.4 Legal requirements, occupational safety, health protection

Our suppliers ensure through their cooperation that all national and international laws, regulations and contracts for the relevant delivery are complied with without restriction. The same applies to all other norms and social standards. Compliance with legal regulations on the subject of product liability and safety is to be ensured by a Product Safety Commissioner (PSC), who is the contact person for the Tigges Group in the event of recalls and safety-related complaints.

The supplier shall ensure that all operating materials, equipment or other substances are procured and assessed professionally in accordance with the country-specific legal requirements and that corresponding sources of danger through the handling of these substances are eliminated. Employees are regularly trained with regard to occupational safety and health protection. Suppliers must demonstrate suitable recycling and disposal concepts for their products upon request.

The analysis of legal and regulatory requirements is not limited to predefined specifications of the Tigges Group.

Each supplier must independently identify all necessary legal requirements, analyse them and comply with them (in process validation and series production). The supplier shall ensure that the necessary safety data sheets and technical data sheets are made available to the Tigges Group without being requested to do so, especially in the event of changes.

1.5 Environmental protection

The Tigges Group is aware of its responsibility towards the environment and has committed itself to its protection through various measures. Our aim is to produce in a CO₂-neutral manner in the long term and with the support of our partners. Sustainability is one of the strategic goals of the Tigges Group and is also required of suppliers and sub-suppliers in an appropriate form.

For this reason, we also expect our suppliers to comply with the applicable environmental regulations, laws and ordinances.

Furthermore, we expect from our suppliers that the delivery complies with the current, country-specific directives and regulations (ELV; China RoHS; WEEE) and the GADSL. Suppliers must comply with EU RoHS/REACH. Tigges Group must be notified immediately of any changes.

1.6 Energy and resources

The supplier commits to using energy and resources in an ecologically sensible manner and to ensure continuous improvement of its environmental behaviour as a task for the entire organisation. This applies, above all, to suppliers of energy-intensive products.

The following aspects must be taken into account:

- Integration of sustainability into business decisions
- Responsible use of natural resources and efficient use of energy
- Introduction of clean production
- Preventive measures for pollution
- Designing products, materials and technologies according to the principles of sustainability
- Examining the possibility of using renewable raw materials

1.7 Conflict raw materials

Conflict resources are natural resources whose systematic exploitation and trade in the context of a conflict can lead to serious human rights violations, violations of international humanitarian law or the realisation of criminal offences under international law.

The Tigges Group attaches importance to the fact that its suppliers and their subcontractors know the origin of the raw materials / minerals and take care not to use any conflict raw materials.

[Dodd Frank Act \(umweltbundesamt.de\)](http://umweltbundesamt.de)

1.8 IMDS

The IMDS is the material data system of the automotive industry.

All materials used in the production of cars/trucks are collected, maintained, analysed and archived in the IMDS. By using the IMDS, it is possible to fulfil the obligations imposed on automotive manufacturers and their suppliers by national and international standards, laws and regulations.

We expect our suppliers to ensure documentation via IMDS. TIGGES ID: 274, if necessary.

1.9 Electronic data processing / data protection

The Tigges Group uses supplier information exclusively within our purchasing department and relevant interfaces (e.g., scheduling, development, quality management, etc.) and does not pass it on to third parties.

1.10 CAD

We expect our suppliers to be able to handle the file formats commonly used in the development environment (e.g. .step / .iges / .dxf) and to provide data in this form if necessary.

1.11 Requirements relating to customs and foreign trade regulations

A supplier's declaration corresponding to the delivery of the preferential originating status of the goods delivered shall be made out. This individual declaration according to Appendix 1 to Regulation (EC) No. 1207/2001, amended by Regulation (EC) No. 1617/2006, can be made as an additional document together with the certificate or on the corresponding invoice.

1.12 Emergency management / ensuring supply

In order to ensure the supply and the associated customer satisfaction even in the case of unforeseen events, we expect our suppliers to proactively prepare emergency plans. These must define which measures will be taken in emergency situations (such as flooding, power failure, fire, pandemic, etc.) to ensure that countermeasures are initiated as quickly as possible.

Emergency planning must be developed based on the measures for dealing with risks and opportunities.

Furthermore, it is expected that product-specific contingency plans or even concepts for alternative manufacturing options (such as machine malfunction and failure) are prepared in the course of the feasibility analysis and can be viewed if required.

1.13 Retention periods

The supplier must ensure that order-related quality records can be made available on request. Any modification of the original documents is prohibited for quality records. In the event of premature termination of the business relationship, all quality records must be made available on request.

After expiry of the retention periods, the consent of the Tigges Group must be obtained before records are destroyed. The standard obligation to retain documents and records is 15 years from the date of the last production/delivery (including spare parts).

1.14 Quality targets

The supplier must define quality objectives for relevant functions and establish processes and ensure that these are defined and adhered to throughout the organisation in order to meet customer requirements.

If the quality performance affects the safety, quality or supply of products, the supplier must immediately report this in writing to the Head of Quality Assurance and the Head of Purchasing. The flow of information to the OEM/end customer shall be exclusively through the Tigges Group. In the event of technical and/or general clarifications, the Tigges Group reserves the right to involve the supplier in customer discussions.

1.15 Control of reworked/repaired products/handling of defective products

Finished components / materials that do not meet the requirements must be reported immediately to the contact persons in purchasing.

The supplier must ensure by means of a process that components / materials to be scrapped are rendered unusable before disposal.

Any rework or repair to products that is not included in the agreed production control plan (approved PCP for the PPAP/PPF sampling phase) will be handled in accordance with “10 Change Management”.

The Tigges Group is to be notified via the “Construction deviation request” form prior to delivery of the components. Delivery of the parts / material is only permitted after the deviation request has been approved in writing by the Tigges Group. Each affected delivery is to be marked with the label “Marking construction deviation”.

Documents (see download: <https://www.tigges-group.com/de//>)

1.16 Quality management system of the subcontractors

If the supplier purchases software, services, materials or other pre-supplies from sub-suppliers for the manufacture or quality assurance of the products, production or test equipment, he shall include these in his quality management system or ensure the quality of the pre-supply himself by means of suitable measures. The Tigges Group may demand proof from the supplier that the supplier is satisfied with the effectiveness of the quality management system of his sub-supplier. The supplier undertakes to ensure that all applicable legal and official requirements as well as all product and process-related special features are passed on along the supply chain - up to the actual place of manufacture. All quality assurance stipulations made between the Tigges Group and the supplier shall also apply to sub-suppliers.

2 Supplier management

The Tigges Group basically distinguishes between the supplier approval process and the supplier selection process.

After successful approval, a supplier is managed as an approved supplier and is taken into account by the purchasing department when orders are placed.

During supplier selection, the supplier is checked for suitability with regard to the project-related requirements of the Tigges Group.

2.1 Supplier approval

A prerequisite for a supplier relationship with the Tigges Group is an effective quality management system with minimum requirements according to DIN EN ISO 9001 (certified by an accredited certification company according to the currently valid version).

The following requirements should confirm the effectiveness of the quality management system:

- High flexibility, ability to deliver, and adherence to delivery dates
- Competitive prices in international comparison
- Reconciling ecology and economy, i.e. compliance with applicable laws and regulations are a minimum requirement – ISO 14001 certification is desirable
- Compliance with occupational health and safety regulations
- International logistics orientation / compliance with customs and foreign trade regulations
- Continuous improvement of processes, procedures and products
- Fast and effective implementation of corrective and improvement measures
- Open communication between the supplier and the Tigges Group at all levels

The aim of this quality management system is to “live” the zero-defect principle.

For suppliers in the automotive sectors, target development according to IATF 16949 is desirable.

Further minimum requirements are:

- Our “Supplier Questionnaire” form must be completed for a general assessment
- Non-disclosure agreement (NDA) if necessary

2.2 Supplier selection process

Quotations are made free of charge at the request of the Tigges Group and must correspond to the requested scope of services (scope of delivery and quality, incl. the requirements described in this manual), the quantities and any requested delivery periods.

The supplier receives necessary information (drawings, data, reference to standards, tolerances, requirements on the product, etc.) together with the request. This data is the basis for a feasibility analysis for the supplier, which must be carried out before the quotation is submitted.

The final manufacturability assessment is only requested in the course of the nomination.

The quotation must include all costs incurred in the manufacture and delivery of the requested product.

2.2.1 Project or customer-related requirements

Depending on the project or (end) customer, further requirements may be placed on the supplier. These would be, for example:

- Confirmation of CSR requirements
- Confirmation of Advanced Product Quality Planning (APQP)
- Confirmation of cleanliness specifications (technical cleanliness)
- Sampling documents (e.g., PPAP, PPF)

2.2.2 Directed part suppliers

If an organisation manufactures components / assemblies and has to use parts for which the customer specifies the supplier from whom they are to be obtained, these are referred to as directed parts. In this case, the responsibility for quality still lies with the supplier who processes/works on the directed part.

This means that the organisation must take appropriate measures to ensure compliance with the quality requirements for these parts. A supplier of directed parts is therefore the sub-supplier from whom the directed part is to be procured.

Suppliers of directed parts can be prescribed by the Tigges Group or the end customer. This depends on the respective project and is communicated directly with the suppliers. The supplier receives the information via our purchasing department.

2.2.3 Traceability

The supplier undertakes to ensure traceability and complete proof of quality for all materials, manufacturing processes and products by taking appropriate measures. The traceability is to be designed in such a way that in the event of a complaint it is possible to limit the defective parts/products to the smallest possible quantity (under economic aspects).

2.2.4 Factory standards / Raw material specifications

Essential requirements for products may be specified in corresponding factory standards. Suppliers will also find a reference to the corresponding factory standard on the current order documents/drawings or enquiries.

2.2.5 Special characteristics

Generally, all product and process characteristics are important and must be complied with. For special characteristics, additional regulations apply for verification, validation and evidence according to customer specifications and rules of IATF 16949 / ISO 9001 / VDA.

Special characteristics are divided into two classes:

Safety-critical characteristics	Special product and process characteristics with influence
SC	on safety, danger to life and limb or compliance with legal requirements
Function-critical characteristics	Special product and process characteristics with
CC	significant influence on the function

If special characteristics are stored on drawings for purchased parts, the obligation to provide evidence listed here applies to the supplier. Compliance with the specifications of the special characteristics must be ensured by the supplier (manufacturer of the characteristic) by means of a process capability >1.33. If this required process capability cannot be guaranteed, a 100% test must be carried out for the respective characteristic. Alternative tests for special characteristics must always be agreed with the Tigges Group and must be approved by the Tigges Group. The presence of special characteristics is noted on the document "Requirements for the product" in addition to the drawing details.

The effectiveness of the measures defined in the process FMEA must be proven.

A measuring system analysis (MSA) is mandatory for measuring and test equipment for the verification of special characteristics.

2.3 Supplier nomination

The decision to nominate the supplier is a multidisciplinary decision based on the previous supplier selection process. The nomination phase is completed by the conclusion of the contract.

2.3.1 Product development projects with the supplier

Within the framework of a coordination process with the Tigges Group, the mutual willingness to cooperate under the conditions of the Tigges Group is checked with the supplier. At a meeting, the criteria and conditions of cooperation are written down in a development contract, if necessary.

3 Escalation process

In the event of a problem (e.g., large-scale complaint) caused by the supplier, a uniform escalation procedure is specified, which ensures that appropriate measures are taken. Escalation levels can also be imposed in the context of a negative supplier evaluation. The escalation process serves to accelerate the implementation and effectiveness of improvement measures.

If action plans are agreed with the supplier, the supplier is responsible for creating, updating and communicating them on a rolling basis in a timely manner and must do so without being asked.

4 Supplier assessment

The strategic suppliers and those subject to audits are subjected to a comprehensive supplier evaluation on a regular basis. Our suppliers receive the results of the supplier evaluation in written form every year. The exact evaluation criteria are listed in the respective annex.

The aim is to systematically measure the performance of our suppliers. The supplier evaluation provides us with a decision-making basis for the selection of suppliers for series products and new products, assessment of material and process costs, further steps and measures within the framework of supplier development, right up to the phasing out of a supplier.

However, the goal of a long-term, partnership-based and high-quality cooperation should always be in the foreground within the framework of supplier development.

Supplier evaluation is important to us, so we expect our suppliers to use evaluation as a fundamental tool for continuous improvement and development, and to jointly maintain competitiveness as a result. The Tigges Group is free to agree quality targets with the supplier for the following period based on the supplier evaluation.

The assessment period is the respective previous business year (1 Jan.- 31 Dec.).

5 Supplier visits

On-site visits to the supplier by Tigges Group employees can be carried out to deepen the common understanding of the cooperation, to deal with current topics and concerns or as part of supplier management. The date will be jointly agreed in advance and an agenda will be provided.

6 Audit and other inspections

In the event of a necessary trigger (e.g., potential analyses, complaints, product relocations, supplier evaluation, etc.), visits to the supplier or its sub-suppliers may be necessary in the form of supplier discussions or audits.

In the course of these audits, the supplier is expected – after prior announcement of the date - to grant all representatives of the Tigges Group and its customers access to its production sites, and if necessary, also to its sub-suppliers. This will always be mutually agreed.

The production and work sites, compliance with the required QM system and order-specific criteria can be checked during the audit. Value-added processes at the supplier can be analysed and evaluated with the help of a process audit carried out by the Tigges Group. We generally aim to carry out process audits in accordance with VDA 6.3.

The same applies to production sites and workplaces of sub-suppliers / subcontractors of the supplier. The supplier shall oblige its sub-suppliers / subcontractors to comply with these requirements.

The result of the audit will be communicated to the supplier in the form of a written audit report. In the event of non-conformity or identified deviations or potentials for improvement, corrective actions must be initiated by the supplier by means of an action plan within the specified deadlines and in a sustainable manner. A review of the effectiveness and sustainability is sought after a given period of time. This review does not necessarily have to take place on site at the supplier's premises, alternative communication channels can also be used if the Tigges Group so decides.

7 Planning and monitoring of all processes

To ensure product quality for all new or modified products, a quality planning is required with the following focus points.

- Manufacturing (machines, devices, tools, work processes, preventive maintenance)
- Capacity and procurement (machinery, operating and testing equipment, subcontractors, material)
- Handling, preservation, storage, packaging, transport
- Environmental protection in processes and recycling of products and packaging
- Reliability analysis, product safety
- Quality management methods (e.g., FMEA, SPC, MFU, inspection plan, etc.)

Quality planning must take into account the areas of incoming goods, production, inspection, final inspection, storage and packaging. This quality planning must be documented in a suitable form and proof must be provided to the Tigges Group upon request.

8 Sampling

8.1 Purpose

Upon request, the supplier shall carry out an initial sample inspection (production part acceptance procedure) and confirm compliance with all requirements according to drawings, specification books, standards, specifications and legal regulations.

This guideline is intended to ensure that the documents and processes necessary for sampling correspond to the required scope and time sequence.

Possible sources of error are to be identified and appropriate corrective measures are to be initiated even before the start of series production. A uniform and detailed procedure is therefore necessary to carry out sampling.

8.2 Sampling

Sampling must always be provided at a defined and agreed point in time. Changes (according to customer requirements, product requirements), in the development as well as series production phase, must be re-sampled.

Sampling must always be provided in the following cases:

- New part according to drawing
- Requalification (re-sampling)
- Technical change resulting in an increase in the revision level of a specification or drawing. For each new/changed drawing, the feasibility analysis must be updated by the supplier.
- Relocation of production or relocation of individual machines
- Changes to the production method or process
- Changes to purchased parts / change of supplier
- Interruption of supply of more than 12 months
- Interruption of production for more than 12 months

The list is not finally binding. In case of doubt, the sampling must be coordinated with the Tigges Group.

Raw material deliveries are not subject to initial provision of samples. In the case of material deliveries, the supplier must ensure traceability to the delivered material via batch numbers or delivery note numbers. Test certificates according to the order of the material supplier with details of the mechanical properties and chemical analysis must be enclosed.

The delivery of series parts may only take place after written initial sample approval by the Tigges Group. Initial sample parts are to be delivered specially and visibly marked from the outside and shall be delivered separately. An exception requires written approval of the Tigges Group.

8.3 Sampling conditions

Sampling is carried out with parts that have been manufactured under series conditions with all process steps, testing and logistics processes (incl. all sub-supplier processes) (cf. DIN 55350, VDA Volume 2, AIAG PPAP Guideline in the respective current edition).

Initial samples are to be delivered with complete documentation and order reference.

8.4 Sampling procedure

The supplier must use suitable and calibrated testing equipment which gives him the means to be able to test the parts for compliance with the given specifications.

Characteristics for which the supplier is responsible must be substantiated by appropriate proof of measurement (tests). If the characteristic is not manufactured by the supplier himself, but, for example, by the sub-supplier, the minimum requirement is that the proof of measurement (testing) is carried out by the sub-supplier.

The supplier undertakes to carry out the tests according to the agreed specifications and to document all characteristics individually with TARGET and ACTUAL values. The ACTUAL values must be able to be assigned to the sample parts.

8.4.1 Initial sampling

The forms according to PPF / PPAP in the order are to be used for sampling. The cover sheet of the initial sample inspection report is to be filled in completely.

During the initial sample measurement, all items / characteristics of the Tigges Group drawing as well as the standards, ordering regulations and specifications listed therein are to be measured / checked and confirmed in all points.

8.4.2 Scope of sampling

The scope of samples to be provided is coordinated and ordered with the supplier in advance.

8.4.3 Modification of sampling

In the case of modification samplings, only the characteristics / specifications affected by this and the main functional and functional characteristics are to be presented. The item numbers from the first EMPB are to be retained in the modification sampling.

Changes to the manufacturing process may only be made with the prior written approval of the Tigges Group. The scope of sampling required for the process change must be agreed with the Tigges Group. The obligation to notify the Tigges Group of the aforementioned changes lies with the supplier.

8.5 Control plan

Depending on the sampling scope, the supplier shall create a control plan. For sampling according to VDA and PPAP, the requirements for the CP are specified in accordance with IATF 16949.

8.6 Risk assessment

The creation of a process FMEA for the corresponding component must be mandatorily ensured by the supplier, alternatively, another type of risk assessment can be used. This must be done in coordination with the Tigges Group.

The preparation of an FMEA must be based on the guidelines according to the state of technology (VDA / AIAG). The FMEA must be presented for inspection upon request. The FMEA cover sheet must be sent to the Tigges Group together with the sampling documents (depending on the defined scope of sampling).

8.7 Capabilities

Proofs of capability (e.g., measuring system analysis, machine and process capability study) are to be provided as part of the sampling request. The supplier should define and evaluate special characteristics himself, if necessary, if there is no demand on the part of the Tigges Group.

The supplier must ensure the corresponding process capabilities for the characteristics.

For characteristics according to the drawing and/or guidelines from delivery specifications, the specifications from chapter 2.2.5 "Special characteristics" apply. Deviating requirements will be coordinated by the Tigges Group with the supplier.

Proof of measuring equipment capability must be provided for all measuring equipment used for testing the special characteristics. The procedure must be carried out in accordance with VDA Volume 5 or MSA (AIAG).

These regulations also expressly apply to deliveries outside of sampling (series production).

8.8 Decisions

The supplier will be notified of the decision on the respective sampling. Samples that do not meet this sampling requirement will be rejected.

If the test results correspond to the specifications, a release for series delivery is granted.

In the case of a release with a condition, the deviating characteristic must be subsequently sampled.

If the initial sampling was rejected, the presentation of new initial samples including new sampling documents is required in any case.

Note:

Deviations from specification requirements that are not detected during the initial sample inspection can also be objected to later, since approval does not release the supplier from the responsibility to deliver according to the respective valid specification.

8.9 Exceptions

Other procedures may be agreed in deviation from this requirement. However, these must always be in writing and are not permissible without prior agreement with the Tigges Group.

9 Serial deliveries

9.1 Packaging and labelling

Within the Tigges Group, the logistics process is ensured with VDB (packaging data sheets).

The packages are to be secured against slipping. We expect an ecologically sensible, resource-saving design of the packaging. Exchangeable pallets, load carriers and reusable containers are to be preferred, but always to be agreed in writing with the Tigges Group in advance.

The labelling of the packages must be carried out in accordance with the agreement. At the very least, however, clear identification must be guaranteed throughout the entire transport and storage process. The following must be indicated on all delivery documents (order confirmation, delivery note and shipping documents etc.): our order number, material number, batch number, material designation and weight.

Mixed packaging / mixed containers with different ID numbers in one packaging are not desired. If collective loading units are formed, these are to be packed in such a way that the same materials are visibly grouped. The pallet is to be marked as "mixed pallet".

The agreed delivery conditions do not release the supplier from the obligation to pack the goods safely for transport.

The consignment shall be loaded, stowed and secured. The supplier is responsible for compliance with the laws and regulations on load securing.

The goods must be placed in such a way that no danger arises for persons, vehicles or third-party goods during unloading. Delivery must be made in vehicles capable of ramp and rear unloading. In the case of long goods, the vehicle must be able to be unloaded from the side (tarpaulin bridge, curtain trailer).

9.2 Hazardous goods

Hazardous materials must be appropriately packaged and labelled in accordance with current legislation and regulations and must be accompanied by the current MSDS version.

Hazardous goods must also be packaged, labelled and transported in accordance with current legislation (e.g., ADR in Europe) and regulations of the relevant country (including transit countries).

10 Change management

10.1 Products and processes

To ensure the satisfaction of our customers, we rely on open and effective communication with our suppliers. Therefore, we expect our suppliers to inform the Tigges Group promptly and proactively in the event of changes.

This includes, among other things:

- Change times for product or process changes (incl. parameter changes)
- Implementation of product or process changes
 - This also applies to all purchased parts as well as the involved raw materials and supplies.
 - The lead time is min. 6 months for mechanical and 9 months for electrical and / or electronic components.

The supplier undertakes to obtain the consent and approval of the Tigges Group as to whether a planned product or process change can be implemented. In order to be able to assess the effects of a change as quickly as possible, the supplier must complete and submit an application for change to the respective contact person of the Tigges Group. The application is then processed by the Tigges Group and the decision is communicated to the supplier.

10.1.1 Deviation / special release

If it becomes apparent prior to the process or within the value-added chain that agreements made regarding quality characteristics cannot be complied with, the supplier shall inform the respective contact person of the Tigges Group of this without delay by means of the form “Construction deviation request” (see homepage <https://www.tigges-group.com/de/>) (see also 1.15 “Label”). The supplier shall also be informed immediately by the Tigges Group of all deviations detected after delivery for which no construction deviation request is available. The supplier shall disclose all required data and facts in the interest of a quick solution.

A copy (marking) of the released construction deviation request (BAW) must be enclosed with each affected delivery.

10.2 Cooperation

Any cancellations and changes of certifications, insurances, shareholders / managing directors, fundamental organisational changes (etc.) must be reported immediately and in writing to the Tigges Group.

Over time, risk-based thinking has become an essential part of the quality management systems. The Tigges Group expects open, direct and prompt communication in the event of the following risk factors:

- Potential supply risks identified by the supplier
- Delivery problems and postponements of deadlines
- Non-compliance with agreements made on quality characteristics

11 Complaint handling

For the Tigges Group, the primary objective is to supply our customers with high-quality material on time. In the event of disruptions in the process and production of the Tigges Group or the customer, the costs will be charged to the party responsible. The costs are communicated plausibly and openly to the suppliers. Costs do not arise if the supplier delivers according to specification and communicates possible issues with the Tigges Group in advance.

The supplier must inform the Tigges Group immediately as soon as he becomes aware of possible problems in the areas of safety, quality or delivery bottlenecks.

If the supplier recognises possible defects in his products or processes (also within the scope of his product monitoring obligation), he must inform the Tigges Group of this immediately. In this case of self-reporting as well as in the case of complaints, the supplier shall immediately submit a prompt, meaningful analysis of the cause of the problem.

If there is a risk of production interruptions at the Tigges Group or its customers as a result of the delivery of products which do not comply with the specifications, the supplier must, in agreement with the Tigges Group, provide a remedy by means of suitable immediate measures to be borne by the supplier (replacement deliveries, sorting/reworking, extra shifts, express transports, etc.).

The 8D method must be used for complaints and objections. The following deadlines apply here:

- **Within 48 h:**
 - 3D report to Tigges Group
- **Within 10 working days:**
 - 8D report to Tigges Group

If these deadlines cannot be met, a written statement with the planned deadline must be sent to the Tigges Group. Without any feedback within the deadlines, the complaint is considered justified and accepted by the supplier.

The initiation of measures and transfer of these into action plans, including time planning and responsibility, is essential. The measures must ensure that the defect no longer occurs (elimination of the cause of the defect). The cause of the defect must be investigated for other products and processes. The supplier must independently conduct and evaluate an effectiveness check. In order to ensure that similar errors do not occur again in the long term, the organisational level must also be considered in addition to the technical cause in the course of the analysis of causes.

Depending on the problem, different techniques must be used in D4 to determine the cause, such as the 5-Why method or the Ishikawa diagram.

If the supplier does not have an 8D report form, it can be found on the homepage (<https://www.tigges-group.com/de/>).

The Tigges Group reserves the right to carry out an effectiveness check on site with suppliers. For the processing of justified complaints, the Tigges Group will charge clarification and analysis costs of EUR 75 per complaint. This shall not preclude the assertion of higher costs for the inspection and examination of delivered, defective goods from the point of view of compensation for damages.

12 Severability clause

Should one or more provisions of this manual be wholly or partially invalid or unenforceable or subsequently lose their validity or enforceability, this shall not affect the validity of the remaining provisions. The same shall apply if a loophole is found. The invalid or unenforceable provision or loophole shall be replaced by an appropriate provision which comes as close as possible to the content of the original provision.

13 Terms & abbreviations

AIAG	Automotive Industry Action Group
APQP	Advanced Production Quality Planning
BAW	Construction deviation (Bauabweichung)
BM	Special characteristics (Besondere Merkmale)
cmk	Machine capability
COC	Code of Conduct
CP	Control Plan
Cpk	Process capability
DIN	German Industry Standard (Deutsche Industrienorm)
EDI	Electronic Data Interchange
EC	European Community
EMPB	Initial sample test report (Erstmusterprüfbericht)
EN	European standards for products and services
ES	Escalation stage
EU	European Union
FB	Form sheet (Formblatt)
FMEA	Failure Mode and Effects Analysis
NDA	Non-disclosure agreement
GmbH	Limited liability company (Gesellschaft mit beschränkter Haftung)
IATF	International Automotive Task Force
IMDS	International Material Data System
ISO	International Organization for Standardisation
LLE	Long-term supplier declaration (Langzeitlieferantenerklärung)
MFU	Machine capability survey (Maschinenfähigkeitsuntersuchung)
MSA	Measurement System Analysis
OEM	Original Equipment Manufacturer
PCP	Production control plan
PPAP	Production Part Approval Process
PPF	Production process and product release (according to VDA Volume 2)
PPM	Parts per Million
QM	Quality Management
QS	Quality assurance (Qualitätssicherung)
QSV	Quality assurance agreement (Qualitätssicherungsvereinbarung)
REACH	Registration, Evaluation and Authorisation of Chemicals
RGA	Maturity assurance (Reifegradabsicherung)
RoHS	Restriction of Hazardous Substances
SAP	Systems, Applications and Products in Data Processing
SOP	Start of Production
SPC	Statistical Process Control
SQE	Supplier Quality Engineer
UM	Environmental management (Umweltmanagement)
VDA	German Association of the Automotive Industry (Verband der Automobilindustrie)
VDB	Packaging Data Sheets (Verpackungsdatenblätter)
WEEE	Waste Electrical and Electronic Equipment Directive
WGM	Product groups manager (Warengruppenmanager)

ZAV	Cooperation agreement (Zusammenarbeitsvertrag)
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14 Other applicable documents

- Customer-specific requirements
- Factory standards
- General terms and conditions of purchase
- Code of Conduct
- Non-disclosure agreement
- Manufacturability declaration
- FB Construction deviation request
- FB Supplier questionnaire
- DIN EN ISO 9001:2015
- IATF 16949:2016
- AIAG publications
- Applicable VDA editions
- Chemicals Regulation REACH (1907/2006)
- Restriction of Hazardous Substances RoHS (2011/65/EU)
- Global Automotive Declarable Substance List
- EU End-of-Life Vehicle Regulation ELV 2000/53/EC
- Dodd Frank Act (umweltbundesamt.de)
- Other legal requirements