Global Supplier Manual

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The lead document is the original English document.

The translation document shall be based on the current original English document.

Locally stored or printed copies of this document are not controlled and are for reference only.

Consult B.A.Se for current version.

1 Introduction

The high expectations and requirements of **MPP** (**Motherson Modules & Polymer Products**) and its customers regarding the quality of the products require a quality-oriented, competitive and cooperative supplier base. To achieve this goal, systematic quality management is required, in which the suppliers of MPP have an important role.

A close relationship with the supplier base is therefore essential for successful cooperation. Our focus of cooperation is on the following aspects

- Open communication
- Stable processes
- Zero failure strategy
- Adherence to delivery dates
- Performance evaluation
- Continuous improvement

Our goal is to continuously improve all aspects of the supply chain through collaboration, planning and implementation of superior strategies in order to achieve sustainable and profitable growth for MPP as well as for our suppliers.

2 Purpose

This global supplier manual specifies the basic requirements for quality and environmental management of MPP (**Motherson Modules & Polymer Products**) operating companies (later only called "**MPP**") on suppliers. By fulfilling quality and environmental requirements up to continuous improvements in all areas of the company, customer satisfaction and economic success should be ensured.

As part of its quality management, the supplier shall carry out advanced quality planning, quality control, quality assurance and continuous improvement in line with MPP requirements to achieve the highest level of product and process quality. To ensure this, all deliveries and services within the supply chain must fully comply with the agreed and legal requirements.

The requirements listed in this manual and its appendices are in line with the OEM requirements. They can therefore be used as “customer specific requirements” in terms of conformity with the supplier's QMS and for audit purposes.

3 Scope

This document applies to all suppliers of prototype parts and components, production materials, series and spare parts as well as services and development activities. The validity of this document is confirmed with the agreement of the MPP framework contract. The current Supplier Manual in its respectively valid version and the applicable associated documents shall form part of every enquiry and every order. This shall also apply to all future business relationships for the purchase of supply items.

This is to ensure that the suppliers meet the MPP requirements and the requirements of the OEM customers. The requirements are based on the latest edition of IATF 16949 and customer specific OEM requirements.

In addition, the following documents apply in their current edition:

- ISO 9001
- IATF 16949 (incl. SI`s and FAQ`s)
- ISO 14001
- ISO 50001
- ISO 45001
- VDA volumes "Quality Management in the Automotive Industry"
- AIAG (Automotive Industry Action Group) guidelines in the automotive industry (PPAP, MSA, SPC, APQP, FMEA, Sustainability, CQI-8,9,11,12,23)
- CCC (China Compulsory Certification)
- REACh (EC 1907/2006)
- VDA ISA (Information Security Assessment)
- ISO 27001
- OEM Customer Specific requirements (CSR)

In the event of a difference between the OEM standard requirements and the MPP requirements, the higher or stricter requirements are binding.

This document replaces all previously published MPP quality and environmental management agreements.

4 Responsibilities

The suppliers of products or services must meet all the requirements listed in this manual and the corresponding appendices throughout the project and product term. This includes:

- Regularly check that this document is up to date at

https://suppliers.motherson.com/supplier-expectations/modules-and-polymer-products-div

- Ensure that the customer-specific standards and requirements mentioned in this document and its appendices are available and known.
- Ensure that these requirements are met along with the supply chain.

5 Language

The official language of MPP is English. Communication between MPP and the supplier takes place in English or, if agreed, in the respective national language of the MPP plant. The supplier manual is published in English and, if necessary, in the respective national language. In the event of deviations, the English version alone is binding.

6 General Expectations

The supplier undertakes to comply with the following standards:

6.1 Sustainability Standards

Sustainability is a long-term and strategic success factor for MPP and our suppliers and is based on the following three elements:

1) Social responsibility

2) Responsibility for the environment

3) Ethical and moral responsibility

The sustainability provisions are based on the following internationally recognized principles:

- United Nations Global Compact (http://www.unglobalcompact.org)
- ILO International Labor Standards (http://www.ilo.org)
- AIAG Guiding Principles Sustainability (http://www.aiag.org/corporate-responsibility)
- OECD (https://mneguidelines.oecd.org/duediligence/)
- World Organization for Animal Health (http://oie.int)

Further information on the MPP sustainability Requirements for suppliers can be found on the Motherson MPP Supplier Portal.

6.2 Labor Management

- Compliance with all applicable governmental job requirements, including the modern slavery law, within your business and supply chain.
- Ensuring that the production or processing of the products to be delivered is carried out without exploitative child labour in the sense of ILO Convention No. 182 (http://www.ilo.org)
- Compliance with the applicable minimum wage laws
- employees Compliance with working hours in accordance with the applicable laws, industry standards or the relevant ILO conventions (http://www.ilo.org)
- Implementation of policies that prohibit trafficking, slavery, forced or involuntary work.
- Prohibition of any form of discrimination against employees
- Respect voluntary freedom of association. Workers must be able to communicate openly with management about working conditions without fear of reprisals. Employees must have the right to associate, join a union, appoint a representative and be elected to it

6.3 Health and Safety

As an employer, the supplier ensures occupational safety and health protection in the workplace within the framework of national regulations and supports constant further development to improve the world of work.

6.4 Environmental Management

All products manufactured along the supply chain must meet the environmental protection standards of their respective market segments. This includes all materials and substances used in production. Chemicals and other substances that are dangerous when released into the environment must be identified. Hazardous substances management must be set up for them so that they can be safely handled, transported, stored, reprocessed, or reused and disposed of using suitable procedures. To this end, the supplier must demonstrate compliance with the latest published version of ISO 14001 environmental management systems, or certification of an equivalent standard or must demonstrate that it is taking steps to become certified

The supplier shall establish and maintain an environmental management system.

6.5 Corruption and Compliance

MPP expects its suppliers to conduct their business in a socially and environmentally responsible manner and to adhere to the same principles in their supply chain. The compliance requirements include:

- Implementation of measures against corruption in all its forms, including extortion and bribery.
- Compliance with all applicable laws and regulations
- Integration of environmental, occupational safety, human rights and labor policies
- Evidence of fair competition and antitrust, conflicts of interest, whistleblowing, and protection against retaliation.
- On request, clear, accurate and appropriate reporting to MPP

6.6 Information Security

The suppliers for **tools, prototypes, engineering services, checking fixtures and IT-Service** undertake to comply with the information security requirement in accordance with VDA ISA (Information Security Assessment) referencing the ISO 27001 standard in their company.

This must be proven by a valid TISAX certification. The TISAX approval must be kept up to date on a regular basis and be transmitted to MPP via the supplier Portal without request (extract scope information from the ENX portal).

The TISAX assessment level depends on the requirements of the information exchange and must be met in accordance with the specification.

1. If no special customer requirement on information security is specified, at least **TISAX Assessment Level 2** (Objective: high availability, confidential) is required.
2. Dealing with strictly confidential data from customers, **TISAX Assessment Level 3** (Objective: very high availability, strictly confidential) is required.
3. If the supplier is not yet certified, **Assessment Level 1** is required as a **self-assessment** with a minimum maturity level of > 2.1.

Note: The self-assessment is valid for a maximum of 12 months and cannot be extended. The purpose is to gain insight into suppliers' information security practices until a third-party TISAX Assessment Level 2 is issued.

The supplier undertakes to pass on and monitor the information security requirements for his subcontractors.

7 Supplier Selection and Qualification Process

The purposeful selection and qualification of suppliers ensures that only suppliers with quality capability are admitted to the bidding process.

Transparent evaluation of operational delivery performance in combination with strategic risk analysis forms the basis for systematic supplier development.

Based on the results of the measures introduced, supplier classification is reviewed continuously.

This control loop in supplier management safeguards the company's delivery capacity and reduces costs of poor performance.

7.1 Registration, Approval and Administration Process

The supplier selection process begins with the self-registration of suppliers on the supplier B2B platform (if available at MPP plant).

In case a B2B portal is not available at least the proof of the following documents is mandatory to obtain qualified status:

1. Completed supplier assessment survey as a self-assessment
2. Signed NDA (Non-Disclosure Agreement)
3. Signed bank account approval (all suppliers)
4. Evidence of on-site Product Safety & Conformity Representative (PSCR)
5. Minimum requirements for certification status
6. Proof of valid TISAX certification (see Chapter 6.6)

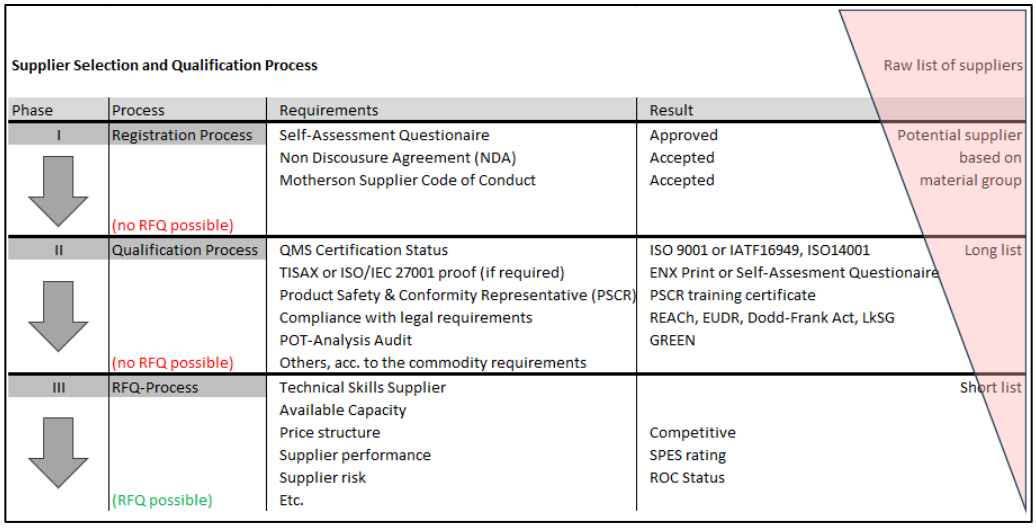

Fig. 1: *Supplier qualification and selection scheme*

The information provided is objectively checked by the buyer, and if all requirements are met, the supplier is approved as a "potential supplier".

"Potential suppliers" can be further qualified according to commodity classification. Qualification measures must be defined and implemented with the potential supplier before reaching the status "qualified".

If longer-term action plans (e.g. on certification status) are agreed with the supplier during the qualification phase, these are documented in the MPP B2B platform or in writing with the commodity buyer with a planned implementation date.

7.2 Criteria for Awarding Contracts

In the run-up to procurement process, MPP carries out a supplier assessment, which results from the preventive assessment of the quality capability and the proven quality performance. If a quality classification is not available for the supplier, a process evaluation of the corresponding production / development site is required before awarding the contract. In this case, a potential analysis according to VDA or AIAG guidelines is carried out by the Supplier Quality Management department.

With the submission of a quote, the supplier manual as well as the supporting documents and applicable measures become binding. Subsequent objections are not possible.

7.3 Sustainability requirements

MPP requires an annually updated sustainability rating before awarding a new project. Answering the online self-assessment questionnaire on the **EcoVadis** platform is required to ensure award eligibility. The status "not awardable" remains until the valid sustainability rating is submitted / shared with MPP.

If no assessment can be performed on the EcoVadis platform, an award decision can only be made if a written action plan with implementation date for the sustainability assessment is agreed between supplier and MPP specialist purchaser prior to SOP (direct material) or prior to delivery (indirect material).

7.4 Supplier Qualification and Development (IATF Chapter 8.4.2.3)

New suppliers of components or services to MPP shall be obligated to have a quality system in place which **at minimum** meets the standards of the international quality standard ISO 9001 with the ultimate objective of becoming certified to the latest revision of IATF16949. Unless otherwise approved by the customer, the following sequence should be applied to achieve this requirement:

- Certification to ISO 9001 with compliance to other customers defined QMS requirements (Minimum Automotive Quality Management System Requirements for Sub-Tier Suppliers [MAQMSR] or equivalent) through 2nd party audits
- Certification to ISO9001 with compliance to IATF 16949 through 2nd party audits
- Certification to IATF16949 through third-party audits (valid 3rd party certification of the supplier to IATF 16949 by an IATF-recognized certification body)

7.5 Product Safety, Product Liability

The manufacturing responsibility for the purchased parts built into MPP's final product is according to product liability law with the supplier and with its sub-suppliers. The supplier therefore must do all organizational and technical feasibility to ensure the product's safety of its parts and those of its subcontractors to minimize the risks of product liability.

The supplier ensures and obligates his subcontractors that:

- By means of appropriate series-accompanying quality assurance measures in the production control plan the likelihood of the occurrence of faulty products is minimized.
- The development of components ensures the necessary product safety and is secured by FMEA.

- Special consideration is given to product safety in quality planning (APQP / MLA)
- The quality capability of the manufacturing processes is ensured and demonstrated by FMEA.
- The timely detection of faulty products in the production process is ensured by means of appropriate measures as early as possible.
- Quality data and legally required verification tests are documented in detail in order to demonstrate that the products have been manufactured in accordance with laws and safety standards.
- A material traceability system is used in order to be able to limit the effects of occurring faults, if necessary.
- Components or production materials with a limited shelf life meet the specific labelling requirements.
- Detailed information and training of the employees responsible about product safety and product liability, and comparable systems are applied to all subcontractors.
- An on-site Product Safety & Conformity Representative (PSCR) is named for each stage in the supply chain.
- Independently perform or initiate regular process, manufacturing, material and product reviews (line walks) of the current series to confirm product safety for intended and foreseeable (mis)use and initiate and follow up on (immediate) actions for relevant deviations.
- In accordance with the requirements of the Product Liability Act, the supplier will ensure that all deliveries and services correspond to the state of science and technology.

7.6 Supplier Facility Access

After reasonable notice and during normal working hours, the supplier permits MPP and MPP customers access to their own facilities and their suppliers' facilities to review parts, processes, documents (e.g. FMEA`s, control plans, process instructions, other records) used in the manufacture of MPP products to evaluate whether the products and/or subcontracted products meet the requirements. MPP may use independent or its own auditors at its own discretion. These auditors represent MPP and review the supplier's processes to ensure that the necessary quality system requirements are met.

7.7 Contingency Plan

Suppliers shall develop a contingency plan for potential catastrophes disrupting product flow to MPP. The supplier must regularly review the contingency plans to ensure their effectiveness (e.g., through simulations). The contingency plans should be reviewed (at least once a year) by a multidisciplinary team including top management and updated as required. In an actual catastrophe, suppliers shall provide MPP’s authorized representatives’ access to all MPP or MPP’s customer owned capital equipment. The supplier shall maintain adequate safety stocks at their own cost for high-risk products (parts where there is a risk of supply shortages). Suppliers must ensure they have sufficient property and liability insurance to cover the replacement of all equipment and sub-components used to manufacture products purchased by MPP.

Supplier must inform MPP in case of disruptions generated from

- Key equipment
- Purchased materials (components / raw materials) shortage
- Natural disasters
- Fires
- Service disruptions
- Workforce shortage
- IT systems or cyber-attacks
- infrastructure disruptions

In case of sudden interruption, information must be provided to MPP no later than 6 hours after the interruption.

In the event of foreseeable events, notification must be made in a timely manner so that MPP can take emergency measures (e.g. depending on the minimum safety stock at disposal).

8 New Product Implementation

8.1 Feasibility Agreement

A supplier-signed feasibility agreement shall be provided with each supplier's quote. Technical, quality, manufacturing, engineering, purchasing, delivery, and business requirements will be provided by MPP and shall be obtained and reviewed by supplier.

By submitting the quote, the supplier agrees to all requirements and obligations, as well as to be able to implement unrestrictedly the feasibility of the negotiable items in accordance with the feasibility agreement.

MPP requires the supplier to take specific consideration of all defined product requirements, such as:

- Manufacturability [execution of feasibility analyzes involving production technicians]
- Ability to assemble [take effective design measures against assembly errors]
- Measurability [verification together with measurement technicians]
- Availability of materials
- Target price [regular determination of the calculated production costs]
- Expected process spread and their importance for the product requirements, etc.

8.2 Project Management (APQP or MLA)

The APQP or MLA process begins during the design phase of a program and continues until the product launch for each new part. All suppliers must implement a regulated APQP or MLA process, with the scope depending on the risk classification of the part. High-impact parts are prioritized, while less critical parts are managed with reduced requirements or standard procedures.

Criticality	Requirements	Description
A-Classified High Risk	Full APQP / MLA process required	Safety-critical or functionally critical parts with strict requirements for process capability, testing and documentation
B-Classified Medium Risk	Simplified APQP / MLA process	Parts with medium quality or cost impact, scope based on risk analysis
C-Classified Low Risk	Minimal or no APQP / MLA required	Standard parts, C-parts or non-critical purchased parts, secured by supplier approvals and incoming goods inspections

During the development cycle of any project, the design of the manufacturing processes must be planned to ensure zero defects and meet the capacity requirements provided by MPP. A performance test (Launch Readiness Audit or R@R) and a Capacity Confirmation are conducted before the start of series production to verify that the manufacturing processes can achieve the agreed-upon quality and volume targets.

All suppliers must regularly provide APQP or MLA status reports, with the frequency and scope to be coordinated with the person responsible at MPP.

8.3 FMEA

MPP requires suppliers to provide a systematic and comprehensible analysis of the product risks and possible malfunctions over service life. Product / design / process FMEA must be implemented to ensure that potential problems are identified as early as possible and appropriate measures are taken to avoid such problems.

Commitment is given by the supplier to make a **F**ailure **M**ode and **E**ffects **A**nalysis, (FMEA), for each new contract item and before the start of the serial production, in accordance with “Failure Mode and Effects Analysis – FMEA Handbook” from AIAG&VDA and to maintain over the entire production period. A process FMEA must always be drawn up, even if the design is not within the responsibility of the supplier; If the supplier has full or partial design responsibility, a design FMEA must be prepared in due time. The FMEA must consider the interfaces with the components, the transport, the assembly, and the environment.

Characteristics such as process and machine capability analysis and special characteristics must be respected in the control plan and in the FMEA.

As the starting point for processing FMEAs, at least the following are required:

- Definition of the special product features
- Definition and addition of pass-through characteristics (PTC)
- Definition of critical processes
- Detailed analysis of manufacturability based on individual part drawings
- Definition of technologies, layout, process scheduling, clamping situations, processing reference areas, etc.

- Concepts of process control, work plans and control plans, concepts of facilities and machines, information from similar processes
- Well-known machine capability, process capability, etc.
- Special product features must be recorded in the PFMEAs

In addition, the supplier must prepare quality management- and test plans. The documents are to be presented to MPP for inspection at the supplier's location.

8.4 Special Characteristics (SC)

The supplier must clearly identify critical processes and technologies in its production and processes if applicable. Suitable measures to achieve the agreed process capability targets as well as appropriate safety precautions must be taken, including but not limited to detailed planning, process analyses, identification and definition of the special characteristics of the process and important process parameters, process approval for series production, process monitoring and control immediate measures for deviations. These requirements must also be transferred to the respective subcontractor, provided that these critical processes and technologies are part of the subcontractor's processes.

The regulation of the manufacturing processes must include the ongoing monitoring of the product characteristics and the parameters affecting the process. For this, methods of statistical process control (SPC), where possible and expedient, are to be applied. The process parameters and product characteristics involved in the control must be documented in production control plans. MPP requires evidence of continued stability and process ability in serial production regarding special characteristics (marked with <S>, <Z> and <F>) if not otherwise agreed before.

8.5 Control Plan

The production control plan shall be drawn up in accordance with IATF 16949 standard, Chapter 8 in addition to Annex A and shall include the complete process from goods receipt to goods shipment with applicable customer specific requirements such as product audits and requalification tests. The findings from product or process FMEA, as well as experiences from similar projects / processes with potential for improvement, are included in the production control plan as part of "lessons learned".

The control plan and all documents to which the production control plan relates must be updated independently and made available to MPP for the first sample inspection according to the agreed submission level. Measurements and function tests carried out for process approval or during ongoing production as well as for the final inspection shall be specified in the production control plan. For all test and measuring devices specified in the production control plan, proof of measurement capability according to VDA Volume 5 or AIAG MSA must be carried out and sent to MPP together with the sampling documents and the production control plan. Changes to the production control plan must be indicated and require the examination and approval of MPP. The creation of the production control plan is described in detail in VDA Volume 4 and IATF16949.

8.6 Prototypes and pre-production parts (subcontractors, documentation)

The prototypes and pre-production parts to be tested are to be documented throughout the entire production process, from the manufacture of the parts to the assembly, especially regarding the materials, dimensions, functions, optic, etc. The scope of the documentation / reporting is coordinated and agreed between the supplier and MPP.

Documentation of product compliance results shall be submitted with supply of pre-production parts for engineering validation.

Minimal documentation requirement to be submitted are following documents:

- Part approval cover sheet
- Dimensional conformance report
- Material conformance report
- Part history sheet
- Material Data Sheets, IMDS
- Pre-series control plan
- Approved packaging for production purposes

The prototype parts must be permanently marked to ensure traceability to the test results. Any additional markings must be agreed upon with the SQA.

8.7 Internal and external Laboratory requirements

The supplier must approve the choice of its inspection, testing and calibration suppliers for the development and series production of its supplies.

The current version of IATF 16949 (Chapter 7.1.5.3.) applies to the requirements for internal and external laboratories.

External laboratories shall be accredited to ISO/IEC 17025 or national equivalent and include the relevant inspection, test, or calibration service in the scope of the accreditation (certificate); the certificate of calibration or test report shall include the mark of national accreditation body.

8.8 Gauges & inspection equipment

The gauge concept, including the fixture concept and tolerance design, must be agreed with the MPP APQP / MLA planner at the start of each project.

The reference points must be taken from the test equipment specification, and the coordinates must be taken from the part drawing / CAD data, if available.

8.9 Ability of inspection & testing systems

The supplier ensures that the capability, functionality, and suitability of every test & measurement system used per control plan is demonstrable. The methods of the automotive industry, as defined in the latest version, MSA manual of AIAG, VDA and in agreed customer standards, are to be applied by the supplier.

The following minimum requirements apply to measuring systems:

- Ability characteristics C_g & C_{gK} each 1.33
- Variable data – AIAG R&R variable MSA-4, data for 3 people measuring 10 parts, 3 times.
- Attribute data – AIAG MSA ATT kappa, minimum 3 operators, 50 pcs checked 3 times.
- Reproducibility & repeatability [GR & R] >10% tolerance must be accompanied by an action plan, and MPP approval to proceed.

8.10 Machine and process capability

The examination and assessment of the machine and process capacity is carried out based on "Failure Mode and Effects Analysis – FMEA Handbook" from AIAG&VDA as amended. The supplier must conduct, and document detailed analysis of all specified special characteristics used by the manufacturing plants, unless otherwise agreed; If the supplier does not reach a machine capability value $C_{mK} \geq 1.67$, he must either prove a suitable optimization of his installation or appropriate tests of the produced contract items which exclude defective delivery.

During the series production Statistical Process Control (SPC) is mandatory for specified special characteristics as defined by MPP and the supplier's internal requirements to prove and document a process capability value throughout the product life cycle in accordance with the table below regarding the minimum process capabilities required. If this value is not reached, special containment action will be required e.g., 100% control of this characteristic. Containment actions of NOK results must continue until such time that the process C_{pK} demonstrates acceptable process capability.

Minimum process capability required: **preliminary process capability and long-term process capability**		
Characteristic – Type	preliminary process capability P_{pK}	long-term process capability C_{pK}
<S> [Safety]	2.00	1.67
<Z> [Legal & regulatory requirements]	2.00	1.67
<F> [Function]	1.67	1.33
In the event of a difference between the customer specific requirements and the MPP requirements, the higher or stricter requirements are binding. If the names of the characteristics differ between the customer and the MPP specifications, these must be agreed in written form by the supplier and the SQA.		

Table: Minimum process capability required

The supplier is responsible for the determination and proper establishment of the significant characteristics as well as for the determination of appropriate test methods and corresponding optimization of the manufacturing facilities.

Process capability can be conducted with both variable and attribute data. Minimum requirements for variable statistical indices (SPC) to be calculated using at least 100 individual samples or as specified by the OEM.

Evidence of process capability must be retained at the supplier's manufacturing location. Documentation of process capability shall be made available to MPP representatives upon request.

8.11 Tooling Management

Suppliers shall have an established and proven system to ensure effective and efficient management of all tools and production systems as described by purchase order and appropriate supplemental documents.

The supplier shall establish preventive / predictive maintenance procedures on all tooling to ensure the required operational readiness. Evidence of procedure execution shall be made available upon request. All tools shall be permanently marked so that the ownership of each item is visually apparent (whether OEM, MPP, or supplier). Evidence of the tooling identification and other requested tooling data must be provided with the product PPAP.

The supplier is responsible for the functionality of the tools while they are in use for the delivery of MPP contracted by him. This maintenance and repair include all costs for maintaining the operational readiness and the elimination of all defects and damage as well as all changes and deteriorations as a result of the use at his own expense.

Preventive/predictive maintenance schedules and tool history records shall be documented and available for review.

The supplier is responsible for informing MPP before modifying or disposing of any tooling required to manufacture products for MPP.

8.12 Packaging and Transportation

The supplier shall ensure that the packaging conforms to the agreed MPP (and customer) requirements and is approved by MPP. All packaging must meet basic standards for goods protection and carriage. The packaging should withstand the mechanical, climatic, biotic, and chemical stresses to which they are exposed during transport, storage, and cargo handling. All packaging must also conform to appropriate health and safety, environmental and other legal requirements.

MPP and suppliers shall agree upon the product identification and packaging plan during APQP / MLA, including the following requirements:

All packaging units shall be labeled, and the label shall include:

- MPP part number with engineering level and part name
- Quantity of components within the box or packaging unit
- Supplier name with appropriate MPP supplier code
- Lot traceability number and date - This number shall be directly linked to the delivery note supplied. Identification shall permit traceability back to specific supplier manufacturing and inspection records

- All component packaging must comply with all legal, and/or customer specified safety information unless specified in writing by MPP
- Additional traceability requirements at MPP's request, if agreed
- Expiry date, if appropriate
- A bar-coded label applied to each packaging unit. MPP facilities may specify their own bar-coding formats. Suppliers shall meet the barcode requirements of the MPP location they are shipping to

Suppliers providing products to multiple operating units, on a global scale, shall work with each of the locations to ensure that the packaging is sufficiently robust to withstand shipment by sea and arrive on time without damage. Each container, rack, box, or pallet of material shipped to MPP shall be identified according to the specific requirements and conditions agreed upon during APQP / MLA.

The supplier must contact MPP site to obtain the latest site-specific packaging approval form. Packaging approval form must be completed and submitted for signature by the appropriate MPP personnel. The supplier shall maintain signed form available for review at request.

In order to ensure that the supplier's products are transported in a manner that prevents damage or deterioration, the supplier is responsible for maintaining written instructions detailing proper packaging, storage, and shipping of its products that conform to MPP's requirements.

The supplier shall meet the agreed requirements regarding the use, control and supply of returnable packaging.

MPP expects their suppliers to conduct periodic documented audits on packaged material. Evidence of these audits shall be retained with other lot inspection documentation.

Where the supplier is responsible for the shipment of components to MPP, they shall consign with a proven and certified company which has enough experience in handling the shipment and knowledge of all other applicable legal obligations with regards to the handling of import- / export tariff and duty requirements to ensure prompt and safe delivery of product to MPP.

In the event of special transport requirements (e.g., paint, chemicals, electronical components), the supplier shall ensure the required inter-storage and transport condition complies with paint and chemical or electrical materials temperature requirements. These requirements must be verified either by **thermo-script** or other appropriate methods.

For materials with a limited shelf life, the **expiry date** must be visible on each container (label) and on each delivery note for each of the affected materials.

The proper execution of the contract items shall be certified with an inspection certificate according to DIN EN 10204 3.1 and shall be enclosed with the delivery documents of each delivery from a production lot.

8.13 Sub-Supplier Management

Suppliers of MPP shall have capabilities to manage their respective suppliers including APQP or MLA disciplines and periodic auditing. MPP, when it deems necessary, will audit the critical processes of the sub-suppliers to assure that proper controls are in place throughout the entire supply chain.

Suppliers shall maintain a supplier management system including tracking the quality and delivery performance of their suppliers. Suppliers shall be able to demonstrate that they manage their supplier's issues through documented corrective actions and verification activities.

Suppliers to MPP shall require their sub-suppliers to conform to the requirements described in this manual. Suppliers of MPP shall ensure critical processes are adequately audited and managed. Suppliers shall ensure that all applicable legal requirements and applicable customer specific requirements are rolled down through their supply chain.

If during production of sub-assemblies' articles and/or suppliers are used, which have been specified by MPP, the supplier is not released from his responsibility for a perfect execution of the respective contract object. In this case, the responsibility for quality also lies entirely with the supplier, who must ensure quality requirements through appropriate measures.

8.14 Production Part Approval Process (PPAP)

The PPAP procedure to MPP must be performed via the **SMPPAS** online portal (**S**upplier **M**anufacturing **P**rocess and **P**roduct **A**pproval **S**ystem).

https://smppas.com/

The product and process approval are carried out according to sampling planning and project requirements in the form of Approval Sheet according to VDA Volume 2 or Production Part Approval Process (PPAP) according to AIAG as well as applicable customer specific requirements (CSR).

Initial sampling documents must be submitted via **SMPPAS** in English or in the MPP local language.

Suppliers shall ensure that all requirements are met before submission to MPP, including full approval status for all sub-tier PPAP submissions, including those suppliers directed by MPP and approvals for any change requests.

The PPAP release is not a deviation approval for hidden defects or deviations that were not shown or determined during the initial sampling. Later complaints as well as the withdrawal of the release are possible. If a release with conditions is issued, the deviations must be corrected and a new sampling (acc. agreement) submitted. Special measures (such as limited approval for a specific lot size) are documented in writing with the conditional release. If a rejection of the initial samples is due to deviations that were not communicated in advance, MPP reserves the right to charge for the costs of resampling and debiting the customer.

In general, initial samples or "other samples" according to the agreement in the contract are free of charge for sampling at MPP. Initial samples are taken from the series production process and must be delivered to MPP in series packaging with additional marking as the initial sample.

For each sampling procedure, a sampling coordination agreement will be concluded between the supplier and MPP.

Suppliers shall only submit PPAP/PPA packages for production released drawings, and a copy of this drawing shall be included in the submission package.

Any shipment of products without first obtaining either a signed, approved part submission warrant (PSW / Approval Sheet according to VDA Volume 2) or an approved engineering deviation (concession) shall classify the shipment as defective product and will be rejected and returned at the supplier's expense.

If the sampling of the contents of the package is **not customer-ready** (**red**) based on the test results, missing parts, or documents caused by supplier, a processing fee will be charged for the resulting administrative expenses.

When a project has reached the pre-series phase (saleable cars), PPAP approval must be available. If there is no PPAP approval, a risk analysis must be carried out and a deviation approval is required for each part.

PPAP Process Requirements

When preparing a PPAP (PPAP process), the supplier shall assure the following as applicable to the submission:

- Each initial sampling for MPP shall first require process approval by the supplier which is already scheduled in the project planning phase and conducted by employees of the supplier who have the requisite skills and qualifications.
- Compliance with the agreed deadlines for initial sampling: Fulfilment of the contract shall include both, the receipt of the parts complying with the specifications at the MPP plant as well as the provision of the required documentation at the agreed submission level.
- Special layout set-ups for dimensions must be approved by customer before PPAP submission.
- Dimensional results of the part layout of all drawing dimensions for 5 parts for each cavity. Tools with 3 or more cavities, 3 parts from each cavity. The sample belonging to the batch must be marked as the initial sample and made available to the corresponding contact person at MPP.
- Samples parts for the Production Validation (PV) have been secured and PV testing is proceeding to the agreed schedule.
- IMDS data is submitted to proper IMDS location and approved prior to initial sample submission (acceptance of the IMDS data to be included in PPAP)
- A preliminary Run @ Rate has been performed and the production rate is acceptable to meet the launch curve at the necessary quality level.
- The supplier (to MPP) has reviewed the production capacity at all sub-suppliers (including lower Tier - suppliers). The production rates are sufficient to meet the launch curve at the necessary quality level.
- The gage plan has been completed and signed off by MPP giving approval to use the gage in series production.
- The launch containment plan has been agreed by MPP and has been implemented at the supplier.
- Pre-grain samples (if necessary) have been submitted to MPP. The supplier has received authorization to grain the tooling.
- Grained samples (if necessary) have been submitted to MPP.
- Process numbers match between process flow diagram, process FMEA, and control plan.
- The PPAP sample parts have been produced to the latest engineering change level and have been shipped to MPP for PPAP approval with necessary data.

- Clear labelling of the initial sample parts/shipment with a tag or “initial sample” packaging tape. Stating the order number in the shipping documents.
- All material test results are complete, acceptable, and referenced in the PPAP submission.
- All components’ parts and materials have received full PPAP approval from suppliers. All sub- suppliers’ PPAP's are referenced within the PPAP submission.
- All components required for product release, whether for component matching or for cubing / master jig (Meisterbock) events must be supplied free of charge.
- Every single part required for cubing / master jig (Meisterbock) event must be measured and analysed in accordance with the agreed measurement plan.

For changes to parts and processes, the standards of VDA, Volume 2 “Trigger Matrix” or the AIAG PPAP guideline applies, and the supplier shall be obligated to

- comply with the production processes without modifications
- promptly inform MPP of the changes in line with VDA trigger matrix or the AIAG PPAP guideline for PPF processes
- if a change becomes necessary, to submit a request to MPP for this in writing (and within MPP specific format where applicable) and secure MPP`s prior consent to perform the change and an agreement on who will assume the costs
- clarify the scope of sampling ahead of time
- only perform the change or only start with the change once securing prior written consent from MPP and only perform the change after approval and consultation with MPP.

8.15 IMDS / REACH

IMDS (International Material Data System) refers to national and international norms, standards, laws, regulations, as well as the applicable customer specific requirements.

The supplier shall be obligated to introduce and maintain a material data system which meets the requirements of the International Material Data System (“IMDS” can be viewed and accessed at www.mdsystem.com or www.imds.de) and, in particular, to meet the following requirements:

- Setting up a supplier IMDS account and ensuring that the employees of the supplier using the IMDS account are sufficiently qualified to do so.
- Providing MPP with the IMDS data in the scope of the initial and change sampling in the appropriate system.
- Independently updating the IMDS data in compliance with the applicable legal requirements (e.g. REACH).
- Regularly check the IMDS website for updates (IMDS News)

Supplier must provide the IMDS data for all parts including the catalogue and standard parts for MPP. In case of changes, that cause an index change is an update of the IMDS with the data for “conflict minerals” required.

REACH (Registration, Evaluation, Authorization and Restriction of Chemicals) as an EU chemicals regulation aims to protect human health and the environment from possible risks when handling chemicals. All products that fall within the scope of REACH manufactured in or imported into the European Union. An initial sampling releases the supplier not from constant monitoring. The supplier shall monitor the candidate list (Annex XIV) and inform MPP on time about the changes.

The supplier is aware that non-compliance with REACH regulations or missing warning systems can cause a recall or a penalty. In this case the supplier is 100% responsible for all related costs.

8.16 Usage of recycled Materials

In general, only virgin materials shall be used for the manufacture of the products delivered to MPP. The use of Post-Industrial grades, re-grind and re-granulate that is available to purchase externally is NOT permitted in any case.

Should the re-use of reground material be agreed with the plant, the supplier must ensure that only waste that is produced from the processing of that specific component is used (i.e. unmixed sprues, punching waste, purged material).

The use of re-grind with the virgin material must be approved and validated by MPP Product Development. The material flow of the re-grind must be documented in the product release process. The allowed share of the % of regrind in proportion to virgin material used must be noted in the drawing and declared in the IMDS (i.e. maximum 5%).

For safety-relevant components, only 100% virgin material can be used and the use of any other grades or mixing with regrind is **strictly prohibited**.

8.17 Conflict Minerals

With the introduction of the "Dodd - Frank Act" in 2012 (Conflict Minerals by section 1502), EU Regulation of conflict minerals (2017) and UK Modern Slavery Act (2017) the required Information regarding the conflict minerals, substances of concern and minerals from Conflict-Affected and High-Risk Areas through the supply chain shall be reported.

Under legislation which came into effect in 2012, manufacturers who file certain reports with the U.S. Securities and Exchange Commission (SEC) must disclose whether products they manufacture, or contract to manufacture, contain conflict minerals that come from sources that support or fund inhumane treatment in the region of the Democratic Republic of the Congo or an adjoining country.
To ensure compliance with SEC regulations, MPP requests information on the source of conflict minerals (via **CMRT**) from each affected supplier on an annual basis. In addition, MPP requires its affected suppliers to submit Extended Mineral Reporting (Cobalt and Mica minerals) through the **EMRT** as part of their responsible sourcing. For more information on conflict minerals, click on either of these links:

http://www.aiag.org or http://www.conflict-minerals.com

8.18 Customs and Foreign Trade Regulations

If necessary, the supplier shall issue a long-term supplier declaration according to European foreign trade legislation. The provision of all necessary information is mandatory. If the conditions for a (long-term) supplier declaration are not met, the minimum requirement is the

country of origin and the HTS Code. It may be necessary to obtain a certificate of origin from the authority responsible, which must be provided free of charge.

Proofs about Country of Origin from supplier		
Country	**Supplier from EU**	**Other suppliers (non EU Countries)**
MPP USA	Certificate of Origin / all 6 months	Certificate of Origin / all 6 Months
MPP Mexico	Certificate of Origin / all 6 months	Certificate of Origin / all 6 Months
MPP in Europe Germany / Hungary / Slovakia/ Iberica	Long term-suppliers declaration / single suppliers declaration if just a single shipment / suppliers from Turkey = AT.R	Certificate of Origin with every shipment or information about Country of Origin at Import Invoice
MPP Serbia	EUR1 with every shipment (or declaration of Origin at the invoice)	Certificate of Origin

For more information, check the following document:
"Appendix N - Customs and Foreign Trade Regulations"

8.19 Launch Containment (Safe-Launch)

In order to identify possible problems in new processes at an early stage, a safe launch process must be planned and implemented. During the safe launch period, monitoring and testing are performed at an increased rate. The safe launch phase usually ends 90 days after the customer SOP, but it can also result from a specific quantity of the product. Error-free deliveries during the safe launch phase as well as the fulfilment of all agreed criteria qualify the product for withdrawal from the safe launch process.
The total number of first components (e.g. 5000 parts) without defects during the launch process must be agreed between MPP and the supplier, documented in writing, and communicated weekly to the plant or program team if requested.

In the event of errors during the safe launch phase, the supplier must implement a quality wall and establish containment stations, which must be offline, separate, and independent of the normal manufacturing process and at the end of the process.

8.20 Document and Product Sample Retention

The supplier shall provide to MPP and retain master samples from each activity, die, cavity, pattern for the same period as production part approval records or until a new master sample is produced for the same part number subject to MPP PPAP approval. 6 samples or 2 from each cavity are to be selected from a significant production process run, with a production quantity to total a minimum of 300 consecutive parts, unless authorized in writing by an MPP authorized representative. The samples are to be randomly selected, identified, and used for the measurements provided in dimensional results of the PPAP documentation.

Upon verification of the samples to the drawing requirements the 3 pcs or one of each cavity are supplied as samples with the product PPAP and the remaining parts are to be retained at the supplier. The samples shall be identified as such and shall show PPAP submission reference and MPP approval date.

Document Retention

The supplier is obliged to keep records regarding the entire quality assurance measures carried out from the receipt of the order to delivery can be verified.

Per definition, all documents and records relevant for the product realization processes or for managing business processes needs to be archived according to legal, OEM and Supplier internal requirements. This includes every single revision of the document or form defined as relevant for the management system.

A requirement of the product liability law / product safety and customer specification is the marking of documents which participate in product safety. This is in addition to the marking of product / process characteristics related to product safety e.g., critical or special characteristics.

Documents with special archiving terms (DSATs) must be marked with a clearly visible “D” (obligatory documentation) on the cover page.

For this purpose, the following documents must be identified and clearly visible marked with “D” (mandatory documentation) on the cover page, so that they are subject to a special archiving term.

Documents, Forms, Records	**Archiving Period**
Customer (OEM) specific archiving terms	Acc. to the customer (OEM) specific requirements
Legal defined archiving terms	Acc. the legal requirement, but typical min. 10 years (Product Liability Law, Product Safety Law) or even up to 30 years (for HSE)
Documents with special archiving terms (DSAT)	15 years or as per OEM / customer requirement
Project documentation	• Minimum requirement results from regulations quoted • For reasons of convenience, archiving of the entire documentation should be up to 15 years after the end of spare-parts production

OEM requirements and regulatory requirements supersede and extend the required retention period. Parts used on multiple programs will follow the most stringent OEM document and product sample retention requirement.

8.21 Customer Specific Requirements

MPP defines its specific requirements through this global document and its regional specific appendices. In addition, MPP requires compliance with applicable end user OEM customer specific requirements.

OEM customer specific requirements can be found on the IATF global oversight for OEM customer specific requirements. For those customers that are not listed on the IATF global oversight, please go directly to the specific customer website. If in doubt as to the end user OEM or further guidance is needed, contact your MPP purchasing or SQA contact for assistance.

8.22 Handling & ESD Protection

Suppliers must implement an ESD control system based on ANSI S20.20 or, if an equivalent standard is used, this must be agreed with MPP. Suppliers must follow all packaging, handling, and ESD requirements for components specified by manufacturers, as well as all in-process handling requirements to achieve the required level of quality.

9 Series Production

9.1 Production Approval and Test Equipment

Production releases are made by responsible and qualified persons based on the production inspection plan. For this purpose, all points listed in the inspection plan are checked and confirmed in terms of their correspondence to the specifications.

Production approval takes place by identifying and storing a representative approval sample and documents signing it by the person responsible.

The signed releases remain at the workplace for the duration of their validity.

The supplier must ensure:

- The availability of the release documents at the workplace
- The availability of the approval sample and its appropriate labeling at the workplace as a reference during mass production.

The mass production of products without a valid production release is not permitted without any exception.

9.2 Product and Process Control

The regulation of the manufacturing processes must include the ongoing monitoring of the product characteristics and the parameters affecting the process. For this, methods of statistical process regulation (SPC), where possible and expedient, are to be applied. The process parameters and product characteristics involved in the control must be documented in production control plans.

MPP requires evidence of continued stability and process ability in serial production regarding safety features and special product features (marked with <S>, <Z> and <F> or with supplier-approved marking), at minimum.

Compliance documentation on safety or legal requirements shall be supplied as required. The certificate of analysis must contain the actual results of physical testing and/or measurements specified by contract.

Suppliers shall identify, document, and maintain a list of process controls, including inspection, measuring, test, and error-proofing devices. That includes the primary process control and the approved back-up or alternate methods.

Error proofing devices shall be tested to failure or simulated failure at the beginning of each shift at a minimum when feasible, otherwise according to the control plan.

In case of a temporary change of process control, the supplier shall document the process that manages the use of alternate control methods. The organization shall include in this process, based on risk analysis (such as FMEA), severity, and the internal approvals to be obtained prior

to production implantations of the alternate control method. Before shipping product that was inspected or tested using the alternate method, if required, the organization shall obtain approval from the customer(s). The organization shall maintain and periodically review a list of approved alternate process control methods that are referenced in the control plan.

Standard work instructions shall be available for each alternate process control method. The organization shall review the operation of alternate process controls on a daily basis, at a minimum, to verify implementation of standard work with the goal to return to the standard process as defined by the control plan as soon as possible. The organization shall implement traceability of all products produced while any alternate process control devices or processes are being used (e.g., verification and retention of first piece and last piece from every shift).

9.3 Colour Standard & Colour Matching

Suppliers of coloured parts or components and suppliers of paints, coatings, pigments, master batches and other colorants shall use only MPP or its customers' approved colour master's to develop colour formulations or to determine the acceptance of coloured materials. The supplier is responsible for verifying that the master is current.

The supplier shall have dual sets of colour master's whenever possible. A colour standard shall be stored in a manner to maintain colour integrity.

The colour measuring devices and the colour target values specified during the colour matching process must be coordinated and approved by MPP. Any changes to the measuring devices or target values must be approved by the responsible SQA. Visual and analytical evaluation of colour and gloss shall be made in compliance with customer requirements. Contact the relevant MPP plant for information.

9.4 Maintenance

By means of a preventive maintenance program, the supplier ensures the necessary operational readiness and the ability of the equipment and installation. In the case of unforeseen failures, MPP shall be informed immediately and directly, and a plan of action shall be provided to ensure the supply chain.

9.5 Traceability

To ensure the traceability of supply items, the supplier shall be obligated to

- establish an effective batch/lot definition and traceability procedure, in such a way that the delivered products can be traced back to the raw material.
- ensure that the system for tracing all parts and/or supply items meets the following requirements:
    1) Suppliers shall ensure that their lot traceability system maintains its integrity throughout the entire extended supply chain, including supplier order supplier number, supplier batch number, shift, production line, inspection documents, raw material and purchased components/products
    2) The batch numbers/date codes must be stated on each packaging unit
    3) The batch numbers/date codes must be delivered in the order they were produced, i.e., the "First In-First Out" ("FIFO") principle for the parts and/or supply items must be adhered to for stocking and storage

4) The shipper number will be linked to the batch/lot traceability procedure in such a way that the delivered product can be traced back to the raw material.

- improve or stabilize quality, and thanks to the traceability of the supply items, enable quick containment of defective parts,

MPP reserves the right to submit complaints for parts that it receives that are not suitably labelled for traceability at the supplier's expense.

9.6 Requalification (Annual Validation)

The requirements for re-qualification must be defined in the sampling coordination agreement (SCA) via SMPPAS. On demand, the requalification documents (measurement reports / results of laboratory tests /...) must be provided to MPP within 24 hours.

9.7 Change-Management

All modifications in the production process and product must be notified by the supplier to the respective MPP contact person for the PPA process before implementation. Supplier must obtain MPP approval and changes must be controlled through the APQP / MLA and PPAP process. MPP determines requirements. Unless otherwise agreed, the supplier must proceed according to the following table:

Trigger	MPP specialist for PPA Process (SQA)	MPP Purchasing	MPP Logistics
New parts	D		
Product modification incl material modification (approved by Product Developement)	D	A	
Production relocation	D	A	A
Production process modification (inclunding modification to the logistical value chain)	D		A
Test process modification	A		
Part number revision change	D	A	A
Production stoppage for more than 12 months	D		
Use of new, modified or replacement tools (not applicable for metal cutting tools)	D	A	
Change of sub-suplier	D	A	
Change in sub-suplier locations	D	A	
Modification in sub-suppliers parts (prurchased parts)	D		
Failed requalification test.	D		

D = Execution of PPA Process by the supplier
A = Obligation of disclosure in written form by the supplier to MPP specialist department. Implementation and scope of the PPA Process is decided by MPP specialist department

The supplier must keep a parts history for each component. The parts history must contain the start date of every change in the process chain with reference to the delivery note number of the first delivery in order to ensure traceability.

These requirements are mandatory for the whole supply chain. All Tier-n supplier levels the change management must be controlled in the same way. All changes must be marked visually with a special label, agreed by the MPP production site.

9.8 Audits

9.8.1 Manufacturing Process Audit

Suppliers are responsible for conducting process audits on a yearly base. **Each** manufacturing process must be audited at least once within a three-year calendar period to determine its effectiveness and efficiency using the customer-specific required approaches for process audits. If not defined by the customer, the organization must determine the areas to be audited according to the risk-based approach.

9.8.2 Special Process Assessments

All critical processes at supplier's manufacturing site shall be assessed annually (at all tier levels) using the appropriate **C**ontinuous **Q**uality **I**mprovement (**CQI**) assessment method available at AIAG:

https://www.aiag.org/quality/special-process-assessments

Any item identified in these assessments as "not satisfactory" or "needs immediate action" shall be addressed using formal root cause analysis and action plan. Action plan shall have root cause analysis, corrective & preventive actions as well as containment action that immediately protect all components being shipped to MPP and/or customer.

9.8.3 Layered Process Audit

The supplier must conduct Layered Process Audits (LPA), the aim of which is to ensure consistent application and execution of standards. LPA are to be performed by operational managers. LPA shall be implemented for all operational areas (manufacturing, logistics, maintenance). All shifts shall be audited.

9.8.4 Product Audit

The Supplier shall audit products using applicable OEM customer specific required approaches at appropriate stages of production and delivery to verify conformity to specified requirements. Where not defined by the customer, the organization shall define the risk-based approach to be used. Any quality issues that may result in non-conforming products shipped to MPP or reaching MPP customer must be contained and corrected at the supplier's location. The supplier shall implement a quality wall and establish containment stations, which must be off-line, separate, and independently checked from the normal manufacturing process and located at end of process.

9.9 Complaint Management

When suspect / non-conforming product or delivery or service issue is identified, it is the supplier's responsibility to contain product, replace suspect / non-conforming product, and implement actions to permanently correct and prevent occurrence.

The supplier is obliged to inform himself about his quality level (SPES) and to take measures to meet the zero-fault objectives.

General concern management expectations:

- MPP Quality, Logistics or Purchasing may require a supplier to implement independent containment activity if the severity of the performance issues deems appropriate
- Supplier must respond to the non-conforming material as per the general non-conforming material concern management requirements and all defective material report type requirements.
- All communication regarding the nonconformance should include the DMR report number.
- An administrative fee, and all associated costs will be charged to supplier. Administration fee will be charged at cost defined in the region. All costs associated with shipping, handling, processing, reworking, inspecting, and replacing defective material, including the costs of warranty and of value-added operations prior to discovery of the defect shall be charged to, and paid by, the supplier.
- Response to all types of defective materials reports must be submitted in the required timing electronically through the sites quality management system or by email to the local person responsible in the plant.
- Corrective actions will be provided in the corrective actions 8D format. All problem-solving tools used, and effectiveness of corrective actions must be reported.
- All non-conforming products or service corrective actions result will be reflected in the supplier FMEA and control plans, and lessons learned documents.
- All DMR types will be reported for the supplier's monthly performance rating.
- All applicable number of defects will be reported to calculate supplier PPM, in the monthly year to month supplier performance rating system.
- Disposition and corrective action response timing will be tracked, late responses will be reported to calculate the on-time response score in the supplier performance rating system.
- The suppliers' organizations shall have a documented problem-solving process which shall include initial containment as well documented by the use of a containment worksheet or similar

In order to avoid bottlenecks and to maintain production / manufacturing, MPP reserves the right to rework or sort the defective parts. For this purpose, third parties may also be consulted. If the supplier is unavailable at short notice, this may also be done without the supplier's consent, in that case the supplier must be informed immediately. The costs for sorting and reworking will be charged to the supplier.

9.9.1 Defective Material Reports and Actions

DMR – (**D**efective **M**aterial **R**eport)

Description: Report of supplier non-conforming material – problem detected in the MPP incoming inspection

DMRL – (**D**efective **M**aterial **R**eport **L**ine)

Description: Report of supplier non-conforming material – problem detected in the MPP production line

DMRC – (**D**efective **M**aterial **R**eport **C**ustomer)

Description: Report of supplier non-conforming material – problem detected at MPP customer. Supplier non-conforming products causing customer disruptions at the receiving plant.

DMRW – (**D**efective **M**aterial **R**eport Warranty)

Description: Supplier nonconformance related to reports of non-conforming product reported during vehicle warranty term, including dealer returns, warranty, field actions, and recalls.

Customer places MPP on any special status notification, due to supplier issue, including dealer returns, warranty, field actions, and recalls. The special status notification includes 3rd party containment, recall and new business hold due to supplier defective material found in the Warranty.

DEL – Delivery Issue Report

Description: Supplier delivery issue – supplier issue with materials shipment documentations, special freight, packaging, transport damage, etc. normally reported by the logistic department.

DMR, DMRL and **DMRC** corrective action response expectations:

Supplier shall provide written form of corrective and preventive actions (8D Report) for the claim / defect, respecting the following timeline:

- 3D – latest 24 hours after receiving official claim
- 6D – latest 15 working days after receiving official claim
- 8D – latest 20 working days (1 month) after receiving official claim

In case of exceeding 24 hours or no response to the immediate actions, the suspect delivery will be sorted out by the MPP plant, and the supplier will be charged with the associated costs.

An initial 3D response within 24 hours with immediate actions written shall be submitted including the following details:

- Will the suspected product be sorted or replaced with certified stock? If sorted, provide supplier representatives, who will conduct sorting operation.
- Distribution of information about claim within production plant (Q-alert).
- Number of pieces sorted at the MPP user plant.
- Number of pieces found non-conforming at the MPP user plant.
- How will the sorted/certified product be identified / marked.
- What is the clean point for first shipment to the MPP user plant? How will this product be identified / marked (if different from initial sort)?
- Is there suspect product in transit? If so, when will this product arrive at the MPP user plant and how will it be contained?

6D report must contain root cause analysis using problem solving methods (5WHY /Ishikawa) for functional and systemic failure including planned interim corrective and permanent corrective actions.

In the **8D** step, the supplier will present permanent preventive measures and horizontal deployment, as well as all evidence related to the data contained in the 8D report. Update / review of FMEA and Control plan by supplier is mandatory after every single claim and must be presented to customer.

DMRW corrective action response expectations:

Response to Corrective Actions (8D) must be completed within 20 working days with weekly updates until all actions are completed, unless otherwise specified by MPP.

The analysis for the parts returned from the field must be carried out in accordance with the VDA volume field failure analysis.

9.9.2 Supplier Nonconformance Fee Model

Each defective material report (DMR) causes administrative costs for MPP which MPP invoices to the supplier in accordance with the Supplier Nonconformance Fee Model. This model shows minimum administration fees charged according to the type of DMR. Based on the following model, resource costs will vary depending on MPP site

Adminstration Fee = Resource Scale (Hour) x Hourly Rate (Resource Costs)			
SAP-Code	**DMR-Type**	**Type of activity**	**Resource Scale**
0010	**Repeat Quality Concern** Report of Supplier nonconforming material – issue found at SMP incomming inspection.	Administrative expenses (Processing cost QA, LOG and Controlling)	4
0020	**DMR - Defective Material Report** Report of Supplier nonconforming material – issue found at SMP incomming inspection.	Administrative expenses (Processing cost QA, LOG and Controlling)	4
0030	**DMRL - Defective Material Report Line accumulation** Report of Supplier nonconforming material - issue found at SMP production line (no disruption to the SMP operations and no chance that SMP customer gets impacted.)	Administrative expenses (Processing cost Production, QA, LOG, and Controlling)	7
0040	**DMRC - Defective Material Report Customer Issue** Report of Supplier nonconforming material found at SMP Customer.	Administrative expenses (Processing cost Resident Enginer, Production, QA, LOG, and Controlling)	10
0050	**DMRW - Defective Material Report Warranty Issue** Supplier nonconformance causing a SMP customer warranty return.	Administrative expenses (Processing cost SQA, QA, LOG and Controlling)	5
0060	**Logistic / Delivery Issues** Report of Supplier delivery issues – issue found at SMP incomming inspection.	Administrative expenses LOG, QA, Controlling (for e.g. premium freight, packaging, Labeling, EDI,..etc.)	4
K5	**Separate cost breakdown** (e.g. replacement, field action, recall, down time, etc.)	Additional expense to DMR-Type (e.g. quality, production, logistics, Invoices from third parties etc.	expenses according to time and work sheets

9.9.3 Supplier PPM Calculation

The following guidelines will be followed in determining supplier ppm.

- The quantity used to calculate PPM is the amount defective on DMR's (Defective Material Reports), DMRL's (Defective Material Reports - Line Accumulation) and DMRC's (Defective Material Reports – Customer).
- Defects on DMRW's (Defective Material Reports – Warranty) are not counted as PPM. The warranty is treated separately with a negative impact on the monthly supplier performance ratings for all months with warranty issues.
- PPM will be calculated in the equal unit of measure the product is received (Example – resins received in pounds/kilograms. 1.000 pounds/kilograms defective would be 1.000 defects).

- Product received at a third-party logistics warehouse established and controlled by MPP will be treated the same as product received at an MPP facility. Any defects found in sorts will be counted as defective pieces for the calculation of PPM.
- The amount of rejected parts for PPM will be what is found on the line and in containers.
- The parts in the delivery chain at the time of the original nonconformance report will not be counted against the supplier if the supplier takes care of the product before MPP receives it. This can be achieved by the supplier recalling the shipment and checking the product, coming to inspect the shipment when it arrives, or hiring a quality assurance company to carry out sorting when the shipment arrives. This exception is only for the product in transit at the time of original notification of defect. Defects found in shipments made after the notification date will be counted against the supplier PPM.
- If the supplier reports an error before it has been discovered at MPP, no ppm will be counted against the supplier if the supplier takes care of the product before MPP receives it. This can be accomplished by the supplier recalling the shipment and checking product or the supplier performing a sorting action when the shipment arrives
- If the supplier is coming to inspect the shipment when it arrives, or hiring a quality assurance company to carry out sorting at the MPP facility, then only the actual defects found in the sort are counted against PPM (Example – 1,000 pieces rejected, supplier sorts at MPP and finds 25 pieces defective, 25 pieces counted against PPM).

9.9.4 Deviations for Non-Conforming Material

It is the policy of MPP not to accept a product that does not meet the requirements of the applicable and agreed drawings and specifications. Requests for concessions on non-conforming products shall be submitted to the MPP plant for review and to obtain written approval prior to shipment. Any such requests shall be accompanied by a thorough explanation of the root cause for the non- conformance, the actions taken to eliminate these root causes and to prevent recurrence, and the date of quality assured product availability, confirmation of its traceability and the manner of identification.

NOTE: In situations that involve product/components designated as safety critical, no deviations / concessions shall be permitted on features that affect the functionality and/or reliability of the product without the appropriate validation and customer approvals.

9.10 Supplier Containment

MPP Quality, Logistics or Purchasing may place a supplier in containment if the severity of the performance issues deems it appropriate. A supplier will be placed on Containment Shipment Level (CSL2) with an approved third-party provider for any repeat issue within a three (3) month period.

Suppliers who are notified that they have been placed on “containment status”, due to receipt of non-conforming material, continued poor performance, and/or failure to achieve goals and objectives will be required to:

- Establish and communicate the way they will ensure that MPP is provided with only quality-assured products.
- Communicate the way product shall be identified as quality-assured both by container and individual product.

- In circumstances that prevent the supplier from supporting MPP production with quality assured products in an expedient and efficient manner, the supplier shall notify the MPP user plant of the local third-party inspection body that has been nominated to represent the supplier.
- Provide on-site support, in conjunction with MPP personnel, to MPP customers if the containment activities implemented by the supplier prove ineffective.
- Accept all charges associated with the action initiated by MPP to protect its production in the absence of quality-assured products, to include 3rd party containment activity as warranted.

9.11 Supplier Performance Evaluation (SPES)

Motherson has defined expectations for its operating companies' preferred source with world-class performance in quality, cost, and delivery. To accomplish these targets, it is essential that Motherson aligns itself with a strong supply base with an ability to match these demands. Enabling compliance to the businesses' expectations for quality, cost, delivery, development, and management / safety / environment systems.

The purpose of the supplier's performance evaluation is to provide a means of objectively assessing the ability to meet expectations, to identify areas of risk and opportunities for improvement.

Motherson evaluates supplier performance using a set of criteria based key performance indicators (KPI`s). These KPI's are focused on quality performance, delivery performance and commercial competitiveness. Motherson employs the results as essential tools for decision making, risk mitigation and continuous improvement. A supplier performance report is available to all direct suppliers monthly, which assesses the overall performance according to the criteria defined.

Parameters & Weightage

Suppliers will be evaluated monthly on the following parameters as per the weightage percentage against them.

Parameters	Weightage %
Operational	**85%**
- Quality	60%
- Delivery	40%
Commercial	**15%**

Supplier's final score is a sum of operational performance (85%) and commercial performance (15%). Final score will be calculated by multiplying the total points of each parameter (quality, delivery & commercial) with their weightage percentage.

Detailed criteria for evaluating supplier performance can be found in the appendix or directly in the SPES system (guidelines).
https://spes.motherson.com/Home/Login?ReturnUrl=/Plant/Overview

Final Score

Monthly and year to month scores are provided, the supplier must take the actions as per the final score as mentioned in the table below.

Final Score	Rating	Action
>=95	A	"**A**" rating indicates supplier have achieved the Preferred target. No actions are required.
>=85	B	"**B**" rating indicates good performance. All required corrective actions for quality and delivery reports must be submitted. Follow normal continuous improvement
>=66	C	"**C**" rating indicates cautionary supplier performance. The performance should be escalated with in suppliers organization for improvements. Plan and focus on performance indicators causing result in order to improve performance in coming months. All required quality and delivery must be submitted
<66	D	"**D**" rating indicates an unacceptable supplier performance. Systematic corrective actions plans must be submitted to SMG responsible quality and purchasing representatives.

Suppliers shall take appropriate actions according to the rating received to achieve their preferred status. Unsatisfactory suppliers shall implement improvement plans to improve their performance. Unsatisfactory suppliers that fail to improve may be de-sourced. It is the supplier's responsibility to ensure the performance report is received and the information contained in the report is correct. Enquiries and comments should be identified in the report and directed to the MPP purchasing department.

9.12 Program for Critical Suppliers & Supplier Special Status

Based on the supplier performance, focus suppliers will be defined on the following criteria:

a) Suppliers with a D-rating for 3 months in a row

b) Suppliers with a D-rating on average over the last 6 months (rolling)

c) No reaction from supplier (reaction very poor, no or insufficient action plan)

d) C-assessment during a process audit

e) PPAP or APQP / MLA milestones not on time

f) Number of DMRC (3 DMRC within one month or 3 months in a row DMRC)

g) Supplier with expired/suspended quality management system certification (ISO 9001 or IATF 16949 depending of commodity certification minimum requirement)

In order to assure the MPP quality objectives, focus suppliers will be included in the MPP program for critical suppliers.

The program contains four defined levels for escalation:

- Level 1 - Supplier has problems
- Level 2 - Supplier is not successful in solving problems
- Level 3 - Supplier needs external help
- Level 4 - Supplier is not suitable for MPP (new business on hold)

The inclusion in the program is initiated by the MPP plant supplied. Upgrading the supplier is essentially dependent on the elimination of the problems that have occurred. The program is subject to a charge and the resulting extra costs will be charged to the supplier in full.

By reaching level 2 in the "Critical Supplier Program", the supplier commits to provide MPP with access to his financial situation, such as balance sheet ratios, bank statement, liquidity planning, etc... In this way, MPP wants to exclude the supplier's financial instability as a reason for unsatisfactory delivery performance.

The program for critical suppliers can be terminated as soon as all defined exit criteria are met. This is made in written form.

10 Spare Parts Service and Warranty

Spare Parts

All suppliers are responsible for the supply of original equipment service parts to MPP plants for the duration specified by MPP's customer. Service parts are to be produced from production tooling. Regular preventative and predictive maintenance activities are required to maintain production capability. Service parts have the same requirements as production unless otherwise agreed in the contract.

Warranty

The analysis for the parts returned from the field must be carried out in accordance with the VDA volume field failure analysis.

The supplier must coordinate the inspection concept (**Stage 1** – standard test, **Stage 2** – test under load) with the MPP quality responsible for new products or projects prior start of production (as saved in VDA volume maturity level validation for new parts / RGA RG4).

For current projects, the coordination of the inspection concept, if it has not already been done, must be caught up on as soon as possible. All verified warranty costs (from OEMs and MPP) caused by supplier parts will be passed on to the supplier.

To reduce the cost of returning and analysing parts, the determination of defects and the associated cost participation of the partner is based on a random sample of field returns for which defects occurred within the applicable period of limitation for warranty claims. These field returns are submitted to the partner for analysis and serve as the basis for calculating the so-called Technical Factor (TF). It may happen that not every supplier receives parts back for analysis, as these are random samples that are representative for all parts in a so-called parts family. For defective parts that were not returned to the supplier for analysis, the costs incurred shall be reimbursed in any case.

At least the following KPI`s must be tracked by the supplier in the warranty process

- Average reporting time: max. **21 days** (calendar)
- NTF (no trouble found) quote: **30%** of min.10 parts / period of 12 month rolling

Upon reaching the NTF quote, the supplier is obligated to initiate an NTF procedure with MPP according to VDA volume field failure analysis.

11 Continuous Improvement

Suppliers shall develop a continuous improvement program, approved by senior management, which establishes improvement goals, implementation dates, and responsible personnel. As part of a supplier's commitment to its customers, MPP expects that a supplier will implement coordinated improvement activities.

11.1 LEAN Production

MPP expects suppliers to recognize lean manufacturing as an inherently cost-effective method of managing a business. Therefore, suppliers are expected to adopt and implement lean manufacturing principles.

11.2 Lessons Learned

The feedback from previous and ongoing projects (e.g. from field failures, hall incidents, project management, product safety) is to be used by the supplier as lessons learned for development but also in the ongoing series process and in the supply chain. A measurable improvement based on the previous indicators must be demonstrated in the new project launches.

11.3 Value Stream Analysis

MPP expects suppliers to continuously perform value stream analysis and to support MPP workshops during and after the introduction of new products, to provide continually improving product value.

11.4 Business Improvement Plan

Suppliers are expected to implement a visual BIP, a measurement-based continuous improvement methodology, to prioritize and focus company resources on improving the most important aspects of the business in key areas such as safety, quality, cost, delivery, and people. This should involve all employees in driving continuous improvement activities throughout all work areas, including production and administration. Teams and individuals should be empowered to improve the performance metrics using continuous improvement process steps.

12 Additional Documents (https://suppliers.motherson.com)

Appendix A – Glossary of Terms and Acronyms
Appendix N – Customs and Foreign Trade Regulations

Customer Specific Requirements (CSR) Appendices

Appendix E – BMW Group CSR
Appendix F – Mercedes-Benz AG
Appendix G – General Motors CSR
Appendix H – Stellantis (ex PSA) CSR
Appendix I – Groupe Renault CSR
Appendix J – Volkswagen Group CSR
Appendix K – IVECO CSR
Appendix L – Ford CSR
Appendix M – DAF PACCAR Inc.
Appendix P – Traton CSR
Appendix Q – Volvo CSR

Logistic Standards

Global Supplier Manual Logistics
Appendix Logistics Standard
Appendix EDI Guideline
Appendix Packing Guideline Purchased
Appendix Load carrier catalogue of the MPP
Appendix Packaging Data Sheet

13 Change log

Revision	Date	Description
26	12.02.2025	Document harmonized at MPP level
27	03.04.2025	**Section 6.6 Information Security** Added requirements about TISAX Assessment Levels. **Section 7.1 Registration, Approval and Administration Process** Updated the requirements for supplier qualification. Updated **Section 8.2 Project Management (APQP or MLA)**