

Supplier's guide*

of

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The supplier's guide is generally applicable for all direct materials that flow into the end product (raw materials, external materials, purchased parts, merchandise) and to a certain degree for indirect material (operating supplies).

This supplier's guide is available to you for downloading in its current version on our website at www.habe.de .

1	Foreword	3
2	General description	3
2.1	Purpose	3
2.2	Scope of application	3
2.3	Responsibility	3
2.4	Other relevant documents	4
3	General prerequisites	4
3.1	Supplier	4
3.2	HA-BE.....	4
4	Overview of documents in the procurement process	5
4.1	Selection and qualification procedure	5
4.2	Series monitoring	5
4.3	Other agreements	6
5	Selection and qualification procedure.....	6
5.1	Voluntary self-disclosure	6
5.2	Supplier audit	7
5.3	FMEA	7
5.4	Production control plan	8
5.5	Initial samples	8
5.6	Process suitability.....	9
5.7	Product audit	10
5.8	Reliability tests	10
6	Series monitoring.....	10
6.1	Continuous evaluation	10
6.2	Handling of complaints.....	11
7	Other agreements	11
7.1	Special approval.....	11
7.2	Logistics agreement.....	11
7.3	Emergency plan	12
7.4	Quality assurance agreement.....	12
7.5	Confidentiality agreement	12
7.6	REACH Regulation	12
7.7	Product change notification (PCN)	13
7.8	Packaging requirements	13
7.9	Code of conduct	14
7.10	Lending out tools	14
7.11	General Terms and Conditions	14
8	Sustainability	11

1 Foreword

This supplier's guide is to inform existing and potential suppliers about the essential elements of our quality policy and other general conditions, thus facilitating the path to a trusting and cooperative collaboration.

The competition on the national and international markets has dramatically increased in the past few years. The increased individuality of our customers places paramount demands on our company and in turn, on our procurement and logistics department regarding quality, speed and flexibility. The classical approach of tasks relating to materials and flow-of-goods has been replaced by a holistic, customer-oriented management function. The quality of logistics increasingly defines the competitiveness of our company, thereby making it a strategic success factor.

HA-BE can only ensure this high level of quality together with its suppliers. This requires reliable and competent business partners in pursuit of the same quality and customer goals.

2 General description

2.1 Purpose

This document explains HA-BE's quality requirements, as well as additional essential requirements for the suppliers. Within the scope of concluding the agreement or in the case of occurring quality problems, pertinent items agreed between the contractual partners shall be taken into consideration in each case respectively.

The management requirements defined in this supplier's guide outline our requirements to our suppliers, and are primarily focused on the industry's quality requirements. They ensure that

- manufactured parts comply with HA-BE specifications in all aspects,
- process suitability and control at the supplier provide continuous compliance with the specification,
- controlled and effective processes are employed by our suppliers,
- logistical availability can be guaranteed,
- mutual quality assurance exists between HA-BE and its suppliers.

2.2 Scope of application

These requirements shall come into force with the agreements to be separately reached with respect to taking up business relations between HA-BE and the suppliers. This supplier's guide describes the general conditions for purchasing agreements and all other agreements (e.g. quality assurance agreements). In case of possible contradictions, the content of the legal agreements shall have priority.

2.3 Responsibility

The supplier shall proceed in compliance with the requirements agreed with him and set out in this guide.

The purchase department shall ensure the introduction and effectiveness of the requirements set out in the guide.

2.4 Other relevant documents

The procedures and techniques described in this handbook are premised on the standards stated as reference therein.

3 General prerequisites

3.1 Supplier

- Documented and certified quality management (QM) system in accordance with DIN EN ISO 9001
- Environmental management system in accordance with ISO 14001
- Development of a "zero-error strategy" within the framework of quality planning by devising measures to attain the quality goal "zero errors"
- Understanding and acceptance of the HA-BE requirements subsequently described
- Qualified QM staff that are familiar with the relevant QM standards, know the demands made by these standards and are able to implement them
- Carrying out of required planning and tests or analyses, initial samples, process control plans, process suitability, etc.
- Open communication and information in the case of
 - occurring problems
 - unrealisable claims
 - missing or unclear specifications
 - capacity shortfalls
- Qualification of sub-suppliers
- Designation of departments / contact persons with working-day availability

3.2 HA-BE

- Unambiguous and complete information for the supplier
- Clear communication channels and competencies
- Explicit, clear and generally understandable documents pertaining to the product specific requirements
- Clearly establishing the quantity structures, delivery dates incl. projected fluctuations
- Support and consultation

4 Overview of documents in the procurement process

4.1 Selection and qualification procedure

Elements	Documents	Information for the supplier
Voluntary self-disclosure	Questionnaire: Self-disclosure supplier:	To be filled out by supplier
Supplier audit	Check list for supplier audit Audit questionnaire	Conducted by person commissioned with audit
FMEA	FMEA analysis	Risk analysis carried out by supplier
Production control plan	Production control plan	To be prepared by supplier to ensure process reliability
Initial samples	Initial sample test report VDA 2.5	To be prepared by supplier prior to series production
Process suitability	VDA volume 4	To be carried out by supplier for all designated features
Product audit	VDA volume 6 part 3	To be carried out by supplier
Reliability test	VDA volume 3	To be carried out by supplier

4.2 Series monitoring

Elements	Documents	Information for the supplier
Continuous evaluation	Supplier evaluation	Supplier's performance will be continuously monitored by HA-BE
Handling of complaints	8D report	To be carried out by supplier for every complaint

4.3 Other agreements

Elements	Documents	Information for the supplier
Special approval	Special approval	Approval to be obtained from HA-BE prior to delivery
Logistics agreement	Logistics agreement	Agreement between HA-BE and supplier
Emergency plan	VDA 6.1 VDA 6.4	To be prepared by supplier
Agreement on quality assurance	Agreement on quality assurance	Agreement between HA-BE and supplier
Confidentiality agreement	Confidentiality agreement	Agreement between HA-BE and supplier
REACH Regulation	REACH Regulation	Registration of relevant materials
Product change notification (PCN)	Notification of process and product change	Written information by supplier per product change notification (Product Change Notification, PCN)
Packaging provisions	Packaging provisions	Agreement between HA-BE and supplier
Code of conduct	Code of Conduct	Agreement between HA-BE and supplier
Lending out tools	Agreement on borrowing tools	Agreement between HA-BE and supplier
General Terms and Conditions	General Terms and Conditions	Applicability of HA-BE's purchasing conditions

5 Selection and qualification procedure

5.1 Voluntary self-disclosure

5.1.1 Goal:

Information about the supplier for further completion of the company's profile with respect to

- General company data
- Technical information
- QM system

5.1.2 Implementation

The questionnaire entitled "Supplier self-disclosure" shall be filled out by the supplier and sent to the purchasing department.

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5.2 Supplier audit

5.2.1 Goal

The supplier will be evaluated according to his organisational and (if applicable) technical performance.

5.2.2 Implementation

In order to evaluate quality assurance measures, HA-BE will, after providing reasonable advance notice and in consultation with the supplier, perform the audits. These may be performed at all locations of the supplier and his sub-suppliers. The supplier shall oblige his sub-suppliers accordingly.

HA-BE shall provide the supplier with the audit questionnaire. Following consultation with the supplier, customers of HA-BE may also partake in this audit.

In particular, the supplier (or sub-supplier) has to grant insight into

- the manufacturing process
- all quality ensuring measures and organisational units
- documentations and quality documents
- production and storage spaces
- tools, testing equipment, testing facilities

HA-BE shall primarily focus on carrying out process-oriented supplier audits, especially in cases of recurring quality issues it has or for a specific reason.

System audits shall be particularly performed if the supplier does not maintain a quality management system in accordance with DIN EN ISO 9001:2000 or DIN EN ISO 9001:2008.

The supplier undertakes to provide a professionally qualified member of his staff, free of charge, while the audit is being conducted.

The result provides information on the quality suitability of the supplier. If the supplier (sub-supplier) discovers deviations (faults), he must at once develop an action plan to remedy the faults, coordinate such plan with HA-BE, implement the plan in a timely fashion and adequately inform HA-BE thereof.

Results from the audit and insights acquired during site inspection shall be treated confidentially and not made available to third parties by HA-BE, unless the supplier explicitly agrees to such disclosure.

5.3 FMEA

5.3.1 Goal

Prevention of errors, in order to assess potential risks and increase technical reliability in production.

5.3.2 Implementation

The supplier shall be asked to perform a systematic analysis of potential errors in the context of production planning.

5.4 Production control plan

5.4.1 Goal

Ensure the quality demanded by HA-BE by presenting the actions required at each stage of the manufacturing process.

5.4.2 Implementation

The supplier shall plan and document workflows for parts and assemblies throughout the entire process chain.

5.5 Initial samples

5.5.1 Goal

The supplier shall provide proof that the products have been created entirely using standard equipment under standard conditions.

5.5.2 Implementation

The supplier shall provide HA-BE with quality assurance, initial samples and documentation.

- Fully completed and signed initial-sample reports including the production control plan if required by HA-BE
- A clear assignment of drawing features to test results by reference markings in the drawings and an unambiguous assignment of the test results to the subjects. Supporting documentation of process suitability for all marked features and reliability test data, if required in the drawings.

The series release shall only take place after positive sampling. The supplier shall be informed in writing. Only written releases shall be binding.

5.5.3 Selection of samples

The samples have to be completed and tested in compliance with series production conditions (machines, equipment, operating and testing material, processing conditions).

If requested, labelled documentation for individual parts shall be sent accordingly.

Each initial sample delivery shall be packaged separately from the goods in series production and be clearly labelled "INITIAL SAMPLE" both on the container as well as on the delivery note.

Initial samples with an accompanying test report in VDA format have to be provided voluntarily before delivery of the first series.

5.5.4 Renewed initial sample

The supplier shall be obliged to voluntarily inform HA-BE prior to the planned change, in order to obtain approval. As a general rule, an initial sample inspection is to be conducted if

- there are significant changes by HA-BE pursuant to the requirements in the notifications of changes
- there are product changes by the supplier or his sub-suppliers
- there are relocations of production sites by the supplier or his sub-contractors concerning function relevant/critical processes
- there are changes in methods of production by the supplier or his sub-contractors concerning function relevant/critical processes
- there are changes to tools/new tools

5.6 Process suitability

5.6.1 Goal

For the production of all parts, effective and controlled processes shall be guaranteed.

Proof of excluding outside influences or periodically occurring

- reductions of the control efforts for customers and suppliers
- early recognition of process changes (trends)

5.6.2 Implementation

Labelled or separately matched parts that that have great impact on function, safety, installation and reliability of the product.

5.6.3 Proof

The supplier shall ensure that all parts are manufactured reliably.

5.6.4 Minimum requirements

Machine capability/short-term capability - $Cmk \geq 1.67$

Process suitability/long-term capability - $Cpk \geq 1.33$

The distribution is to be validated, e.g. by employing the Gaussian distribution.

5.6.5 Process suitability tests

The supplier shall check the suitability on specified production parts which have been manufactured in consecutive time sequences. Preferably, the entire random test shall be divided into 25 random test each with 5 parts. The calculation for process suitability shall be performed using recognised statistical methods.

5.6.6 Deviations

If the feature does not fulfil the stated criteria, a complete screening inspection has to be carried out until the specifications are achieved. The planned and initiated corrective measures shall be documented in action plans including a time schedule and the responsibility, and shall be kept ready for HA-BE to inspect if requested.

5.6.7 Documentation

The documentation during production shall be carried out using the methods of statistical process control (SPC).

5.6.8 Attributive critical characteristics

In the case of attributive product features, all selected samples for the suitability test have to fulfil the specifications.

5.7 Product audit

5.7.1 Goal

Checking the supplier's compliance with the promised specifications and customer agreements.

5.7.2 Implementation

The supplier is required to plan and conduct product audits. The results, including the targets shall be evaluated and documented in a coherent manner. Deviations shall be remedied by error analysis and relevant corrective measures. If necessary, the audits have to be presented.

5.8 Reliability tests

5.8.1 Goal

Proof of the lifetime specified by HA-BE of the concerned product.

5.8.2 Implementation

The supplier shall carry out reliability tests on the products, for which HA-BE has specified a certain lifetime in the drawings and documentations.

Calibration of reliability test equipment. The test equipment shall be calibrated by the manufacturer's specifications, traceable to the relevant national standards.

6 Series monitoring

6.1 Continuous evaluation

In order to increase and improve the business relationships between HA-BE and the supplier, it is necessary to optimize the testing processes. It is important to provide feedback to the supplier about the quality delivered including records of the improvement potential.

6.1.1 Implementation

Continued gathering of relevant evaluation data:

- Quality
- Logistics
- Technique
- Purchasing

Regular evaluation of the data and reporting to the supplier. In the case of an unsatisfactory evaluation on the part of HA-BE, the supplier shall be under obligation to give a written opinion including proof about the corrective measures and effectiveness thereof.

6.2 Handling of complaints

6.2.1 Goal

Expeditious remedying of the disorder. Limitation of damage through fault localization. Terminal elimination of the problem, no recurring errors.

6.2.2 Implementation

Detailed complaint report to the supplier by HA-BE.

The documentation of the supplier via 8D report shall follow no later than within 8 work days:

- Immediate measures
- Error causes
- Long-term remedial action
- Checking the effectiveness
- Preventative measures
- Final meeting
- Statement

7 Other agreements

7.1 Special approval

7.1.1 Goal

Avoidance of components not conforming to specifications entering the production process without special approval.

7.1.2 Implementation

The supplier shall immediately notify HA-BE in writing after discovering a deviation. HA-BE shall then decide whether special approval can be granted and inform the supplier in writing hereof.

7.1.3 Implementation of the decision

The deliveries may only be made for an agreed amount and an agreed period of time. In the process, each affected consignment shall be labelled with specially agreed identification.

7.2 Logistics agreement

7.2.1 Goal

- Bundling delivery transports reduces transport costs
- Inventory optimization through coordinated delivery frequency
- Process optimization through standardized container concepts and delivery documents
- Increased supply security through the conclusion of appropriate logistics agreements
- Avoidance of special transports

7.2.2 Implementation

The logistics agreement shall be agreed as a supplement to the purchasing agreement.

7.3 Emergency plan

7.3.1 Goal

Maintaining supplier's ability to deliver in a crisis situation.

7.3.2 Implementation

- Drafting an emergency plan
- Jointly determining the parts that warrant an emergency plan

7.4 Quality assurance agreement

7.4.1 Goal

The objective is zero-error performance. The supplier shall manufacture his products so that each product

- is available in the agreed volume
- is available within the agreed time frame
- is available at the agreed location
- is available in the agreed design

7.4.2 Implementation

The quality assurance agreement shall be agreed as a supplement to the purchasing agreement. Products relevant to a quality assurance agreement shall be designated and documented accordingly. A PPM agreement is usually an integral part of our contracts.

7.5 Confidentiality agreement

7.5.1 Goal

With this agreement, both parties to contract ensure confidential handling of all information and data that is exchanged between HA-BE and the supplier.

7.5.2 Implementation

The confidentiality agreement shall be agreed in writing prior to commencement of the business relationship.

7.6 REACH Regulation

7.6.1 Goal

The objective is adequate mastery of the risks which emanate from particularly critical substances as well as a gradual replacement of these substances through suitable alternative substances, providing these are economically and technically viable.

7.6.2 Implementation

- Listing of all substances used by the supplier (registered substances)
- All substances employed that are not on the existing candidate list have to be registered with the ECHA (European Chemical Agency)
- The supplier may only use pre-registered substances or substances that have been authorised after expiry of the transition period
- Definition: Product/mixture
 - A product (e.g. electroplating/lubricants) is not subject to registration
 - A mixture is subject to registration

7.7 Product change notification (PCN)

7.7.1 Goal

The supplier shall inform HA-BE in writing about all changes using the Product Change Notification (PCN) prior to scheduled commencement of delivery with the modified products:

1. Product (e.g. form, fit, function)
2. Materials or parts included in his products, other than standard parts and standard materials
3. Manufacturing process of the product
4. Relocation of the production facilities and sites
5. Methods or devices used in testing products
6. Changes related to supplier parts/third-party services
7. Changes of sub-suppliers of the supplier for parts or materials, other than standard parts and standard materials
8. Type approval/qualification
9. Export/customs-related data

7.7.2 Implementation

The PCN has to contain a detailed description of the change. Upon request, the supplier's results of the qualification shall be provided. This may take the form of sampling in accordance with VDA.

The supplier shall undertake none of the above-mentioned changes without obtaining prior written consent from HA-BE.

The consent shall not release the supplier from his obligation to deliver the products according to the product specifications.

7.8 Packaging requirements

7.8.1 Goal

The supplier undertakes to treat the finished products with care and to protect them from being damaged. If product-specific packaging has not been agreed with HA-BE, the supplier shall ensure that appropriate packaging is used in compliance with current safety and environmental standards.

7.8.2 Implementation

The following principles are to be followed:

- Avoidance of packaging
- The packaging must not exceed and be more elaborate than is absolutely necessary to protect the goods.
- Padding material should be kept to a minimum.
- When using disposable and reusable packaging, reusable packaging material shall be used in compliance with waste management requirements and labelled accordingly.
- Use of homogenous materials. Composite materials are not permitted.
- Where disposable and reusable packaging is equal in economic and qualitative terms, reusable packaging shall have preference.
- Poolable, reusable packaging (euro pallets, euro mesh pallets, etc.) shall have preference over non-poolable, reusable packaging.
- Reusable packaging is to be constructed in such a way that it is possible to empty it entirely and also easy to clean and dry.

7.9 Code of conduct

7.9.1 Goal

In cooperation with our suppliers, it is of special concern to us that the issue of compliance, and thereby compliance with laws, internal guidelines and our environmental principles are taken into account. This includes the environment and adherence to the laws and norms related thereto, reduction of negative environmental impacts and actively working on avoiding such impacts.

7.9.2 Implementation

Obligation of the supplier to adhere to the HA-BE Code of Conduct and regularly grant inspection by representatives of HA-BE.

7.10 Lending out tools

7.10.1 Goal

Lending out tools and devices owned by HA-BE for the processing of orders by the supplier.

7.10.2 Implementation

The transfer of tools and devices to the supplier comes with the obligation of labelling HA-BE property, maintaining it and treating it with care. Provision of tools and devices to third parties shall only be permitted with the written consent of HA-BE.

7.10.3 General Terms and Conditions

Our business relationship is premised on the purchasing conditions of HA-BE. These are available to you for downloading in their current form as amended on our website at www.habe.de .

8 Sustainability

Environmental protection and resource conservation are core concepts of the HA-BE business philosophy as with an efficient and clean production we do not only live up to the commitments towards nature and society. We are also convinced that sustainable action results in long-term competitiveness. HA-BE is an innovative partner for customers and with the help of its sustainable orientation also supports its customers efforts concerning preventive environment protection across the entire value chain.

In cooperation with our suppliers we expect that their actions do comply with environmental protection as well as related laws and standards and that they actively minimize or prevent any impact to the environment.