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Supplier's Manual

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1 preamble

To meet the continuously increasing requirements for quality and flexibility also in future, we need capable suppliers who are willing – together with us - to meet the challenges of the future and of the market, highly committed and beyond the basis requirements. Together with our suppliers we endeavour a qualitative and continuous partnership, intending an early integration of our business partner into the processes of BING Power Systems GmbH. We supply high quality components and provide services which meet the requirements of our customers. Therefore, we place the same demands on our suppliers to make sure that also their products and services correspond to this quality standard. We work according to the specifications of ISO / TS 16949; our target is zero defect.

This manual shall be a guideline for the co-operation between us and the supplier. More information you can find in our supplier's portal: <http://b2b.bingpower.de/>. In case you have any questions concerning this manual, please don't hesitate to ask your contact person at BING Power Systems GmbH. We are gladly prepared to answer your questions.

2 field of application

2.1 object of agreement

This manual is applicable together with all purchase contracts concluded between BING Power Systems GmbH and the supplier, provided no other regulations have been made. It is also applicable already in the inquiry phase.

2.2 Code of Ethics

Code of Ethics is a binding authority for every employee and for the company business partners and should support the following points:

- to create trust and transparency
- to emphasize honesty and fairness
- to react with the law
- to improve living and working conditions
- to teach social responsibility
- to respect and strengthen the individual and company rights
- to act future-oriented and sustainable
- to protect our environment
- to harmonize economy and ecology



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Our orientation point are the principles of the United Nations Global Compact.

- Prohibition of children and forced labour

We do not use goods and resources, which are produced using of children and forced labour. This is applying for our whole supply chain management. Our suppliers commit equally to respect the prohibition of children and forced labour.

- Human rights

We avoid goods and services of production companies which are in countries where human rights were disregarded, or violation of human right were tolerated. We encourage our suppliers and partners to follow our lead.

- Anti-corruption actions

- Any kind of personal advantages or preferences is not allowed, material or non-material
- Gifts should be only of symbolic character and value
- Price of invitations should not be higher than the customary and adequate limit
- Any supplier will be treated by us with equity and neutrality
- Buyer and decision-makers of BING Power Systems GmbH commit to encourage the open competition and to consider quotes of all suitable partners

- Sustainability

Our targets are characterized by sustainability, to develop our daily life and the life of future generations. To this also belongs conscious approach with any kind of resource's.

- Environment protection

Our company pursues consistent environment protection in all areas. Every employee is aware of holistic environment protection and can contact the department of waste and pollutant management.



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2.3 procurement and quality policy

Our aim is “quality at fair prices”. This is the background for our procurement policy. Together, we would like to reach the following objectives:

- building up of a long-term relationship between customer and suppliers
- ensurance of collective competitiveness
- excellent communication
- minimization of storage and transportation expenses for the mutual benefit
- establishment of conditions for the supplier so that the supplier can respect his responsibility for quality in the best way
- quality assurance prior and during the delivery of series
- continuous improvement according to Kaizen

2.4 application area

In this manual, the minimum requirements are defined which must be fulfilled by the suppliers of industrial goods which are delivered to BING Power Systems GmbH at regular intervals and under production conditions. This manual replaces all previous editions of the supplier’s manual and all revised versions.

2.5 purpose

This supplier’s manual intends to communicate in detail all requirements which BING Power Systems GmbH is making on the quality and environmental management systems of the suppliers who effect deliveries continuously and perform services.

2.6 background

Our requirements are based on the rules and standards of ISO / TS 16949 (requirements for quality assurance systems) as well as ISO 14001 (requirements for environmental management systems). Furthermore, the current terms and conditions of purchase of BING Power Systems GmbH are valid. These requirements are a legally binding part of all delivery and service contracts concluded between BING Power Systems GmbH and the supplier.

3 supplier developments

3.1 supplier self-assessment

The supplier self-assessment is summarizing the most important information for a first general rating of the supplier. The supplier gets the form, on the first



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contact together with the inquiry documents. It must be filled out completely and sent back to the responsible purchaser, at latest together with the quotation.

3.2 supplier selection process

Before establishing a business relationship, BING Power Systems GmbH is affecting a supplier audit. Intention and subject matter of this audit shall be the check-up whether the supplier principally is suitable for a further co-operation and building-up of a business relationship. This selection process is effected by a standardized procedure and the results of this audit are openly communicated. The ultimate supplier nomination is made by the departments of purchasing/ logistics, quality management and engineering.

3.3 supplier audit

The audit shall identify improvement potentials as well as weaknesses in the processes and in the organisation of the supplier. The audit team of BING Power Systems GmbH usually consists of employees from the departments of quality, purchasing and logistics and possibly production. The decision which supplier is subject to an audit, depends from the supplier evaluation and delivery performance of the supplier. However, we intend to carry out an audit with all relevant suppliers. Other reasons for carrying out an audit can be current quality problems in the production supply or demands of our customers. The supplier agrees that also customers of BING Power Systems GmbH can participate in these audits. The auditing of a supplier is made according to VDA 6.1 / 6.3, respectively according to ISO / TS 16949.

The audit can be carried out as a system, process or product audit and will be announced in good time. The supplier ensures his assistance for carrying out the audit. The result of the audit shall be communicated to the supplier in writing. In case any deviations are detected, the supplier commits himself to prepare a co-ordinated action plan including a time schedule and to realize this in due time.

3.4 supplier evaluation

The supplier evaluation is measuring the performance quality of a supplier during a specified period and its change. Currently, the parameters quality and delivery reliability are evaluated with a weighting of 50 % each in the total sum. The delivery reliability is composed of the parameter for adherence to delivery dates (60 %) and the parameter for adherence to quantity stipulations (40 %).

The aim is to develop improvements in the assessed areas where potential is existing. The supplier evaluation is carried out at least once a year. The supplier is informed about the result as soon as possible; in case the supplier is evaluated as a B- or C-supplier, he is requested to give his comment. The classification is as follows:



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Final grade A = 100 – 90 points
Final grade B = 89 – 80 points
Final grade C = 79 - 0 points

In case of being classified as B- or C-supplier, these suppliers will be blocked for new orders and excluded from bidding process.

3.5 escalation model

Should problems occur repeatedly during the business relationship, or should the supplier's performance degree continuously, BING will initiate various activities according to the escalation model. These include for example discussions in quality, purchasing and management level, action plans, workshops, special tests etc. The escalation levels can also result in ending the business relationship.

Escalation model see <http://b2b.bingpower.de/> in the field of „documents“

4 quality

4.1 general quality management requirement

All suppliers with whom we already work together or who are supposed to work together with BING in future are expected to operate a comprehensive quality management system. The supplier must confirm this in written form by presenting us copies of his certification documents.

These must meet at least the requirements of DIN ISO EN 9001:2015; however, the aim must be that all suppliers orientate to a quality system according to ISO / TS 16949 and can prove this.

Our suppliers in turn obligate their sub-suppliers in the same way.

4.2 quality assurance agreement

A quality assurance agreement regulates the quality-related relationships between the supplier and the customer. This agreement is obligatory for us and additionally applies to the existing delivery conditions. The quality requirements mainly settle the following points:

- quality management system
- test and documentation responsibilities
- audits



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- agreements on product history
- traceability
- complaints
- declaration of substances
- product liability

In some cases, we issue additionally an article-related quality agreement, describing specific criteria of a product.

draft see <http://b2b.bingpower.de/> in the field of „documents“

4.3 advanced quality planning (APQ)

The advanced quality planning is the basis for a potential error prevention and continual improvement. The process of advanced quality planning covers the steps from development to series production. It requires an interdisciplinary team which includes all main departments, such as sales, development, production planning / preparatory work, production, purchasing and quality assurance.

There must be developed a plan showing the individual steps, the corresponding completion date as well as the responsibilities for the required actions.

Before an order is placed with a supplier, the manufacturability must be proved. By submitting the quotation, the supplier confirms that the inquired article can be produced without restrictions / modifications. We expect together with a quotation our filled form feasibility study.

further information: form feasibility study at http://b2b.bingpower.de in the field of „documents“

Without having finished the advanced quality planning, the initial sample test reports are not valid. Standard parts (catalogue parts) can be excluded from this regulation.

Usually, the advanced quality planning is carried out in co-operation with the interdisciplinary team of the supplier; the progress is regularly reviewed. In case BING should not participate, the supplier must carry this out on his own responsibility. The advanced quality planning can result in an article-specific quality agreement, defining the most important characteristics and determining how these will be checked, evaluated and documented during the series production.

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4.4 failure mode and effects analysis

The FMEA assists in avoiding errors by offering a structured analysis of potential failure modes. FMEAs must be carried out during the development as well as during the process planning. They are required for all new or revised products and processes. FMEAs are „living documents“ which have to be updated constantly concerning changes in development and processes, as well as concerning product application.

The product characteristics and process parameters recognized by FMEAs as „significant“ or „critical“, will be essential characteristics of the control plan. The supplier is obliged to provide to BING quality assurance upon request at any time the FMEA system process. The measurements resulting from the FMEAs have to be realised before initial sample inspection.

4.5 special characteristics / characteristics requiring documentation

With TS16949, the term „special characteristics“ was introduced.

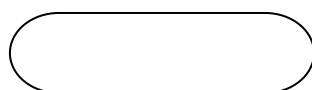
terminology from TS16949:

special characteristics

are product characteristics or production process parameters which can influence

- security or
- adherence to government regulations,
- fit,
- function,
- performance or
- further machining of the product.

In case BING specifies a characteristic as special characteristic, this is **marked** on all more recent drawings with the following symbol:



! The special characteristics shall not mislead in the way that drawing notations are differentiated into important and not important notations. In principle, ALL characteristics have to be within the tolerance.



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However, the characteristics defined as special characteristics do have significant influence on the points mentioned in the definition.

Therefore, at least for these characteristics we expect

- a **machine capability study** when installing the machine
- **SPC-records** during the serial production

The analyses for machine capability and preliminary process capability are to be attached to the **initial sample inspection**.

According to ISO /TS 16949, special characteristics in control plans, process flow charts, work instructions and other documents in connection therewith have to be identified and handled separately. Characteristics which we marked as special characteristics are also marked as special characteristics in drawings / specifications or in other separate documents. The supplier is obliged to inform himself about the further use of his product and, if necessary, to identify the special characteristics. Furthermore, the supplier has to make sure that also his sub-suppliers know the relevant special characteristics, understand them and survey them in an appropriate way.

For further information please see BING standard 41.017 at <http://b2b.bingpower.de>

Characteristics in BING drawings marked with „D“ are so-called D-characteristics. Out of this, the documents with special filing (DmbA) are deduced. The retention period for documents / records with special characteristics and DmbA is 15 years.

Further information: VDA volume 1 – verification management

4.6 product safety

The product safety at BING Power Systems GmbH is defined in the BING-Norm 40.006 and explains how important the product safety inspection is to avoid product liability cases. This BING standard is valid especially for safety-related products and processes. If it is needed, please ask.

Important terms for product safety are e-Discovery and CC features. E-Discovery refers to disclosure of documents for evidence in the case of liability. CC features affect the safety and the legal requirements of products.

Please contact on issues our security officer at BING Power Systems GmbH. Safety-related products and processes are for determining of the legal and official requirements through feasibility evaluation, risk assessment and customer's advice. Furthermore safety-related products and processes are for



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determining the characteristics and control measures considered by lessons learned.

There are separate approvals of design, process FMEA and of production control plans. In addition, requirements for the product safety must be transmitted to the sub supplier. Staff Training for employees who participate in the production site, is mandatory.

4.7 initial sample inspection requirements (PPAP or VDA 2)

Initial samples are standard off-tool parts and must be clearly marked accordingly and to be delivered separately from series deliveries. The presented parts to be released must originate from a representative production run. For each initial sample inspection, at least 10 samples must be presented. In case of multi-cavity moulds or tools: 10 samples each per cavity and tool / mould. At least 5 parts per cavity must be delivered WITH measurement report. For new parts, ALL dimensions and functions must be documented, for changes only the changed dimensions / functions. We expect the initial sampling process **based on level 3 or rather VDA level 2** in general.

The packaging has to be clearly labelled with „initial samples“. The label must contain following information:

- part name
- part number with index of the drawing
- production date
- manufacturer information

Presenting of initial samples before the first delivery of products is requested in the following cases:

- for a new part which had not been delivered before
- for modified products, regardless of the reason for change
- correction of faults of previously presented parts

Furthermore, submission of initial samples is necessary in the following cases:

- for modified materials or constructions
- for new or changes tools, fixtures, machines
- for changed or new production methods or processes
- in case of relocation of production or relocation of company
- for changed sub-suppliers



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For each initial sample inspection, an initial sample inspection report must be attached. Changes on parts may not be introduced without our written consent.

The initial sample inspection report must contain at least the following:

- cover sheet according to VDA volume 2 or PPAP PSW (Part Submission Warrant)
- measurement report of the individual components
- process flow chart
- control plan
- machine capability study (MFU) for the special characteristics
- certificate of compliance for the used materials according to DIN 10204 3.1
- IMDS-entry in the „international material data system“ (www.mdssystem.com)

An initial sample inspection will be rejected (complaint report) in the following cases:

- missing or incomplete documentation
- deviations from target state to actual state according to drawing (dimensions, material ...)
- incorrect revision index or drawing index
- missing IMDS-entry

Full payment of tooling costs is subject to the approval of the initial sampling.

Draft see <http://b2b.bingpower.de/> in the field of „documents“ further information:

VDA volume 2; release of production part PPAP.

4.8 IMDS-entries

In the scope of the initial sample inspection, all components must be entered into the IMDS-data bank system. To be accepted, the data have to comply with the following conditions:

- entries in accordance with to the current IMDS-recommendations
- bi-lingual entries German / English
- our company number is 325.

further information: <http://www.mdssystem.de>



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4.9 special releases, inspection exceptions and boundary samples

Principally, deviations from the drawing or delivery specification are not allowed. However, in exceptional cases and after having consulted our quality management and our product development, a temporary and/or quantitatively limited release for deviations can be issued. Basically, this has to be done in written form in order to ensure a subsequent traceability. The same procedure applies to boundary or reference samples. These are defined together in respect of the quality characteristics and marked accordingly.

It is possible to issue an exception document which is valid only for the delivery in question, or a permanent exception document which is valid permanently. But it is important that the special releases are only valid up to the mentioned or agreed value. Deviations exceeding the released dimension are handled like normal deviations.

further information: form special release at <http://b2b.bingpower.de> in the field of „documents“

4.10 claims management + warranty claims

In case of quality problems, the supplier has to react promptly and in a proper way. In any case of complaint, immediately after detection the suppliers are informed in form of a complaint report. The suppliers are requested to analyse the faults immediately, to define appropriate remedial actions, to carry out these actions and to monitor them. For every complaint report, we expect to receive a comment in form of an 8-D-report. A first feedback must be sent to the person in charge (normally the issuer of the report) within 24 hours after having received the test report.

Every complaint report automatically is integrated into the periodically effected supplier evaluation, and consequently contributes to the computation of the quality result.

If faulty products are delivered, BING Power Systems GmbH is entitled to assert the agreed warranty claims.

Additional expenditures caused by defects are registered and will be charged to the supplier. Depending on the occurred expense, the following types of costs can be charged:

- actions for sorting out
- costs for rework
- production hold-ups



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- inspection effort
- settlement costs of our customers

5 logistics

5.1 delivery conditions (Incoterms)

For new business relationships, the latest INCOTERMS 2010 are valid. Basically, we expect deliveries to be effected CPT or DDP Nuremberg. In case of a different agreement, it is up to us to determine a forwarder / carrier und to inform the supplier accordingly. In case of deviations we reserve the right to charge the supplier with the arising freight costs.

5.2 delivery parameters

We expect to receive a zero-defect delivery. Our incoming goods inspection is carrying out a pure inspection of quantity and identity as well as obvious damages in transit. When entering a delivery contract, we conclude a “ship to stock” agreement with the supplier. If, nevertheless, an incoming goods inspection for quality is made, this inspection is limited to a pure sampling inspection. Defects which couldn't have been seen or which were not discovered during the incoming goods inspection will be announced to the supplier promptly on becoming aware of, or together with accumulated scrap. In case the transfer of a certificate of compliance, SPC-reports or other documentations is required, the missing of these documentations will result in a negative rating within the supplier evaluation. The missing documentations have to be submitted immediately on request. The delivery will be blocked until receipt of the submitted documents.

5.3 opening hours for deliveries

Our opening hours for delivery of goods are as follows:

Monday to Thursday

from 6.45 a.m. until 12.00 and from 12.30 a.m. until 4.00 p.m.

Friday

from 6.45 a.m. until 12.00 and from 12.30 p.m. until 2.00 p.m.

Outside these hours, goods receiving can only be effected after prior agreement with us. In such cases, please contact your local purchasing agent.



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5.4 labelling and documents to be sent with the goods

For each delivery, generally shipping documents in form of a VDA-delivery note or alternatively a VDA-accompanying document must be attached; for transport containers (carriers) goods tag according preferred to VDA 4994 have to be attached.

The supplier must ensure that there are duly completed shipping documents. Deliveries without the required information cannot be recorded and will lead to a rejection of the delivery, with negative consequences for the supplier evaluation.

All containers and packages such as small charge carriers (KLT), pallets and cartons etc., are to be labelled completely, visible and durable to enable a clear and immediate identification of the goods.

5.5 excess- and short deliveries

Every excess- or short delivery with a deviation exceeding 10 % will result in a negative rating in the supplier evaluation, regarding the adherence to quantity stipulations. We expect that the ordered volume will be kept exactly. In case partial quantities are delivered, this must be explicitly mentioned on the shipping documents.

5.6 packaging requirements

The packaging should be defined during the planning. If BING Power Systems GmbH does not have a specification for packaging instruction, the supplier is requested to develop suggestions for solution and to work towards a clear packaging. The packaging is to be planned with aspects of logistic, quality assurance, environmental compatibility and economic efficiency, and must be separately agreed with us. Regardless of the packaging, the following requirements must be met in any case:

- delivery of parts without damages
- creation of efficient packing units
- optimal utilization of boxes
- reduction of filling material to a minimum or better complete avoidance
- transport lock
- protection against dust and humidity
- specific part protection against rust
- low flammability or fire loads
- trouble-free unloading and transport with floor-borne vehicles
- stackability
- setup for good handling
- easy and ergonomic unloading of parts



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- recyclable packaging materials, as homogeneous as possible
- preference of reusable packaging where possible
- sufficient marking of the used packaging materials
- disposable and returnable containers must be used only in clean condition

In case of unsuitable, dirty, wet or faulty packaging, the supplier is liable for any reduction in quality of the delivered parts.

Packaging provided by us may basically be used for our purposes only. Any misuse is prohibited.

As loading items in principle only EURO-Pool flat- and mesh box exchange pallets with test mark should be used. The maximum stack height including pallet must not exceed 1.200 mm and maximum weight 1,200 kgs. The use of pallets with special dimensions must be agreed with us before and must be released by us in the particular case. Cardboard packaging should not exceed the following external dimensions in order to be incorporated directly into our high-bay warehouse:

Maximum length 590 mm
Maximum width 300 mm
Maximum height 140 mm

6 communication

6.1 language

The business language is German, for foreign-language correspondence the business language is English. Other languages will not be used in communication.

6.2 data transmission

Company-wide, we work with SAP R/3 as ERP-system and PRO Engineer as CAD-software. The transmission of data will only be undertaken as a written communication by Fax, E-Mail or dial / EDI. The supplier shall ensure always to receive data from us. Our suppliers receive the requirements in the form of

- individual orders based on quantities and dates
- delivery schedules based on cumulative quantities with mandatory daily precise dates, quantities



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The indicated dates are to be understood always as the receipt date. The delivery schedules will be provided on a rolling basis. They are updated at regular intervals and usually contain a horizon of 6 months. The last submitted delivery plan / delivery schedule is binding and replaces all previous issues. Usually, 4 weeks are released for manufacturing and another 4 weeks for material release.

6.3 accessibility

The supplier shall ensure that during the local office hours always a competent contact person is available. Prior to establishing the business relationship, a defined contact is submitted to us. A working replacement ruling is taken for given. For emergencies, accessibility will be secured also outside of normal business hours.

6.4 response time

We expect a reaction time adapted to the situation. Clarifying of date and quantity questions should be done on the same day; escalation questions, for example, due to impending shortage or standstill should be answered meaningful and authentic within hours.

We require a response of any further correspondence within one week. This is particularly valid for the confirmation of orders, requests and delivery schedules. In case of non-confirmation, recognition is assumed. The same applies to technical and commercial inquiries of all kinds.

6.5 information behavior

We expect our suppliers to participate actively in the continuous improvement of procedures, processes and products with the aim of improving permanently the overall system. The results of CIP are to be proved as cost savings and as an improvement in quality.

We reserve the right of value and cost analytical considerations of the processes and procedures at the suppliers. With receipt of the order, the supplier agrees to contribute constructively to such measures and to provide the requested information.

6.6 supplier's declaration

The supplier provides unsolicited supplier declarations for the customs origin of the delivered items. Any changes in the source characteristics of the delivered items for which the supplier has already provided a declaration, must be submitted also unsolicited and promptly. The supplier is liable to BING Power Systems GmbH for any damages arising to BING Power Systems GmbH due to inaccurate or delayed supplier declarations.



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6.7 confidentiality agreement

Both business partners commit themselves to keep secret any mutually obtained information relating to the business relationship, and particularly do not make it accessible in any way to third parties. Before entering a business relationship, we reserve the right to conclude a separate confidentiality agreement with our suppliers.

However, there is no commitment to confidentiality if it is general knowledge, or knowledge which verifiably was previously known to the business partner.

7 general requirements

7.1 emergency plan

We expect our suppliers to issue an emergency plan after having received the order. This is to ensure that also in exceptional cases delivery can be ensured. The emergency plan includes parameters such as material supply, equipment availability, personnel and logistics. The only exceptions are cases of force majeure.

draft see <http://b2b.bingpower.de/> in the range of „documents“

7.2 capacity calculation

Before placing an order, the supplier has to submit a meaningful and understandable capacity calculation. It shall show the clock- or cycle time, planned number of shifts, tool multiplicity etc.

7.3 requested and mandatory specification

The transmission of our specifications usually is part of our written inquiry, mostly by E-Mail. In most cases, a detailed product drawing is enclosed to this inquiry. In some cases, further documents such as BING-standards are referred to. In this further documentation, special specifications or technical descriptions as well as additional requirements to the product are specified. If you do not have this documentation, this should be requested from us. If we do not receive any request, we assume that they are known and have been included in the calculation and quotation.

The quotation of the supplier with any existing comments, limitations, modifications etc. (which are reviewed by us and integrated into the drawing) will become the mandatory specification together with our drawing, upon receipt of an order. This includes all relevant information concerning the product or the expected performance.



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7.4 BING – standards

If detailed information is necessary which is not completely present on the drawing, such as specific testing methods, this information is described in so-called BING standards which will be submitted to the supplier.

7.5 project management

The construction of tools has to be documented with regular progress reports and transmitted unsolicited. By sending the order confirmation, a detailed time schedule has to be sent. We reserve the right of reviewing the production status on site at the supplier.

7.6 general drawing agreements

General requirements for components can be found in BING standard 20.001 (general requirements for components & porosity standards).

to be found at <http://b2b.bingpower.de/> in the range of „documents“

7.7 parts history documentation

Any modifications to the component, tools, equipment etc. shall be documented in a part history so that a complete documentation as for error analysis is available.

7.8 tool identification

The provision of tools and moulds is regulated separately in a special treaty (tool loan contract). As described in the tool loan contract, tools, moulds etc. ordered by BING have to be provided with appropriate information that cannot get lost. The tool data sheet including photos has to be transferred together with the closing statement.

draft see <http://b2b.bingpower.de/> in the range of „documents“

8 environment

We expect our suppliers and invite them to introduce an environmental management system according to DIN EN ISO 14001 or similar.

Minimum standard is the current EU environmental legislation. This rule especially applies to the Directive 2000/53/EG of the European Parliament and of the Council on end-of-life vehicles, to the regulation for banned chemicals, to the regulation REACH 1907/2006/EG and RoHS 2002/95/EG, most recent version each.



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9 liability and insurance

The supplier is obliged to conclude both, product liability insurance and recall cost insurance, adapting them always to the current status.

In case of an insurance claim, BING and the supplier are obliged for mutual information concerning all circumstances related to the insurance claim. Furthermore, we consider as appropriate the conclusion of a business interruption insurance.

10 references + bibliography

- ISO/ TS 16949
- VDA Volume 6.1 – system audit
- VDA Volume 2 – quality assurance prior to production use
- VDA 232-101 – VDA-list of declarable substances
- GADSL – Global Automotive Declarable Substances List
- IMDS-guidelines RC001 – RC023
- DIN EN ISO 9001
- DIN EN ISO 14001




11 abbreviations

AKL	automatic small parts warehouse
APQP	Advanced Product Quality Planning
DFÜ	remote data transmission
EDI	Electronic Data Interchange
EMAS	Eco- Management and Audit Scheme
EMPB	initial sample test report
FMEA	Potential Failure Mode and Effects Analysis
IMDS	Automotive Industry Material Data System – see also http://www.mdssystem.com
ISO/ TS	ISO/Technical Specification
KLT	small charge carrier
KVP	continuous improvement process
MFU	machine capability study
PA	document for exceptional release
PFU	process capability study
PPAP	Production Part Approval Process
SPC	statistical process control

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STPA document for permanent exceptional release

12 release and change documentation

<u>date of issue:</u> 2017-11-13	<u>issued by:</u> lhl	<u>signature:</u> 
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revision status:	revision date	revision:
1	2008-11-03	first edition
2	2010-11-16	chapter 4.6 supplemented with number of measured samples
3	2013-08-06	Chapter 4.5 capability indices cancelled, Chapter 5.1 – new INCOTERMS release, Chapter 5.6 packaging requirements added max. dimensions, max. weight and rust protection
4	2014-01-07	Chapter 4.3 supplemented additional information concerning feasibility studies
5	2017-01-09	New norms added and some other small changes
6	2017-11-13	Chapter 4.6 product safety