BENEDICT GMBH

V01

SUPPLIER GUIDELINES

1. Introduction

Our product quality is crucial to our position on the world market. The quality of the goods you supply directly affects our products. As our partners, our suppliers are responsible for the quality of their products. These guidelines are meant to help implement a joint quality strategy, ensure smooth processes between our suppliers and Benedict, and minimize costs.

These guidelines are a customer-specific requirement by Benedict.
The points listed in these guidelines do not limit applicable standards and regulations or legal requirements.

1.1 Scope of application

This manual relates to all production materials received by Benedict. The requirements for suppliers and for the product qualifications may differ for each product group (plastics, metals, etc.).

This does not include acquisition of tools, moulds and infrastructure material.

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2. Purchasing models at Benedict

2.1 Supplier selection

Production material suppliers are selected by Purchasing in close cooperation with Quality Management, Development and Production. In addition to the technical, business and logistical standpoints, the supplier's ability to deliver capability is an important criterion.

2.2 Purchasing conditions

For purchase agreements the General Purchasing Conditions of Benedict GmbH apply (in their current version). If needed, these can be requested from the relevant purchaser or downloaded from our website at http://www.benedict.at/upload/11687960-10853470-Einkaufsbedingungen-Benedict-GmbH-Ausgabe-2016-03.pdf

2.3 Supplier self-disclosure

In the supplier Questionnaire, the suppler summarizes the most important information about his company for the first general assessment. It can be downloaded on the Internet under supplier questionnaires or will be sent to the potential supplier upon initial contact.

2.4 Interfaces

To ease exchange of information, the supplier's responsible contact person for all relevant matters must be indicated in writing by name, position, e-mail address and telephone number, including the contact's substitute. At Benedict, the contact person is the relevant purchaser. Changes in responsibilities at the supplier must be communicated immediately.

2.5 Requirements for the supplier's management system

The basis for cooperation with suppliers is a management system whose functional capabilities are based on the following standards.

Quality management system (QMS):

ISO9001 [alternatively according to the supplier's industry: VDA6.1 or ISO/ TS16949 (automotive industry), DIN EN 9100/AS 9100 (aerospace), ISO 13485 (medical products), TL9000 (telecommunications) etc.] (in their current versions) and an environmental management system, such as ISO 14001.

In regard to the management system, Benedict GmbH is entitled to examine the following documents:

- Specification and verification documents and quality-related data regarding products purchased by Benedict GmbH,
- Specification and verification documents and quality-related data regarding the management system, and
- Process descriptions, work instructions and operating manuals, if they are related to the planning and realization of products purchased by Benedict GmbH.
-

The supplier is obligated to manufacture and test the products purchased by Benedict according to the rules of his management system.

2.6 REACH

The REACH regulation (EC) No. 1907/2006 is the European chemical regulation for registration, evaluation, authorisation and restriction of chemicals. REACH is based on the principle that the manufacturer, importer or downstream user take on responsibility for their chemicals. REACH: Regulation concerning the registration, evaluation, authorisation and restriction of chemicals. The obligations proceeding from it must be seen as the supplier's own responsibility.

2.7 Supplier audit

Before series approval or re-qualification of a supplier or product, Benedict can conduct audits. Benedict expects its suppliers and their sub-suppliers to be ready to demonstrate the effectiveness of their quality management system during an audit. For this purpose, Benedict is given access to all production sites and a qualified employee for assistance.

Benedict reserves the right to take the following measures:

System, process or product audits based on DIN ISO 9001 in its currently valid version

Before an audit or similar process is conducted, the supplier will be appropriately informed. In deviation from this general regulation, in specific cases other agreements may be reached by mutual accord.

If deficiencies are identified during such audits, the supplier must verifiably remedy them. For this, the supplier will create action plans. The measures they specify will be performed in a timely manner, and their completion and proof of effectiveness will be reported back.

3. Production process and product approval (PPA)

3.1 Purpose

Before parts or assemblies can be delivered in series, the supplier must provide proof that the requirements agreed upon in the drawings and specifications are met and that there is written approval for the product by Benedict quality management. This requires both proof of viable production with the specified product properties and a complete initial sampling from the first series production with all associated documents. Benedict provides the necessary forms at its download portal. (Initial sample report, initial sample sticker, etc.)

The supplier can use his own forms, as long as they contain at least the content points that the Benedict templates contain.

Unless agreed otherwise by the supplier and Benedict, the PPA for normed products (such as DIN parts, liquids according to DIN or SAE) is not performed. For this, confirmation that the products/parts meet the appropriate standards is enough.

Increased requirements, such as special product characteristics or maximum permissible deviation rates, must be specified individually. Parts with modified or individual specifications no longer come under the term “standard parts”.

3.2 Sampling standards

Benedict accepts sampling standards that are processes following VDA volume 2 or alternatively PPAP. The standard for this is presentation stage 2 according to VDA vol. 2 or presentation stage 3 per PPAP. When using the Benedict template, the following points must be observed.

The scope of sampling can be adjusted with the consent of the supplier manager in charge. Details requiring agreement between the supplier and Benedict, such as the tests' level of detail, must be agreed upon in writing with the responsible purchaser.

If there is no written agreement, the supplier's submitted initial sampling documents apply as a recommendation on the scope of sampling. Benedict GmbH then decides whether they are suitable and adequate, or whether further documents and verifications are required.

3.3 Terminology

Initial sample

Initial samples are parts, assemblies or production materials that are manufactured completely with standard equipment under standard conditions. Successful approval of the initial sample is required for subsequent series delivery.

Other samples

Other samples are products and materials that are not manufactured under completely standard conditions. They may derive from provisional production processes (see DIN 55350, Part 15)

3.4 Grounds for initial sampling

- New parts that have never been delivered to Benedict before.
- Design changes that affect the dimensions, material or function of a series product
- Changes to the production process
- Tool repair or removal of a defect (service work is not affected)
- When changing suppliers for parts, materials or services (e.g. heat treatment, coating)
- After production has been interrupted for more than one year.

3.5 Sequence/content of the PPA

3.5.1 Sample

Initial samples are to be taken as random specimens from production under series conditions. The batch size of this production must be agreed upon between Benedict and the supplier. The number of parts to be sampled is specified by Benedict (e.g. in the order). Unless otherwise specified, at least one initial sample must be presented (for tool-based parts, per mould cavity or per tool used).

Sending initial samples

The initial sample and initial sample report must be presented by the responsible supplier manager. Initial sample reports can be sent electronically by e-mail or directly with the samples.

Marking initial samples

Packages with initial sample parts must be marked with an initial sample sticker that contains at least the following information:

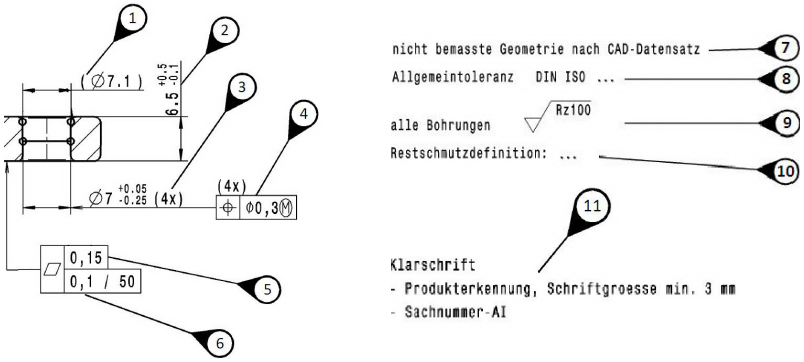
- Name of supplier
- Item number
- Index level
- Quantity of sample parts
- Addressee

The measured or tested parts must be marked as such clearly and, if necessary, on two sides (for symmetrical parts) to prevent confusion. On multiplex tools, each cavity must be marked.

3.5.2 Stamped drawing

A stamped drawing is the basis for the product-related test results. Here it is important that all product characteristics, such as mass, margin references to standards or specification books, and written product requirements be stamped. The stamping serves as numbering and also for clear classification of product-related results.

The following examples are for illustration:



3.5.3 Reports

Measurement report:

In the measurement report, each characteristic must be listed individually with nominal value, limit values and actual value. The actual values must be clearly assigned to the individual samples. If there are changes, only the altered characteristics have to be given. If samples come from more than one tool or mould cavity, a separate test report must be prepared for each tool or mould cavity. Actual values that are outside the limit values must be marked “NC” in the column.

Material report:

Material tests must be conducted for all samples and processed materials. The tests must be verified in an appropriate manner.

Function report:

If requirements for services or functions are given in the specifications, the supplier must meet them in all initial samples and production materials and document them in the function report. This also includes requirements for reliability and durability.

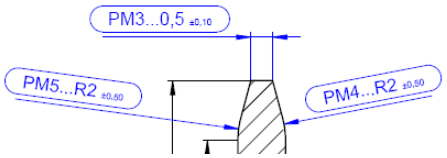
Appearance inspection:

If there are special requirements regarding visual appearance, the supplier must conduct appropriate inspections for all initial samples to verify the required appearance.

If necessary, suitable limit samples must be created and approved by Benedict.

3.5.4 Process capability verification for special properties

"Test properties" (PMs) that are of decisive importance for the product's function and safety, and for quality requirements for the manufacturing process, are marked in Benedict's design documentation. Additionally, further PMs are defined and agreed to with the supplier in consideration of the delivery and quality history of individual parts.
Example of a symbolic marking on design documentation at Benedict:



For every "test characteristic" specified in the design documentation, short-term or machine capabilities (cpk/cmk >= 1,33) must be determined on at least 25 parts to verify the current capability. For multiplex tools, parts must be uniformly measured from every cavity.
Because the systematic influences on the individual production lots (such as people, material, environment, etc.) are not considered for short-term or machine capability, if necessary, a long-term process capability study must be done.
The type and scope must be clarified in each case.

3.5.5 Production control plan or test plan

Upon request, all testing routines and steps for the product (WEP, WAP, SPC test, 100% test, product audit, etc.) must be presented in suitable form. If Benedict specifies testing regulations, these are the minimum to be included. For plastic parts from Benedict tools, the machine setting parameters must also be presented.

3.6 Approval decision in the initial sample report

All individual test results from the appendices submitted are summarized on the cover of the initial sample test report. The supplier receives the original cover of the initial sample test report as the approval decision. This serves as proof to the supplier of that series approval has been issued. Series deliveries are not to be started until after approval is received. After series approval, the supplier is responsible for all parts produced in the future to meet the requirements and specifications.

Testing of initial samples can yield the following findings:

Approved	The deliveries and products are approved according to the delivery schedule.
Approved Drawing must be adapted	This decision can only be made if all random specimen results meet the specifications. In this case, Benedict's design documents are changed. No re-sampling is necessary. The deliveries and products are approved according to the delivery schedule.
Approved with conditions, re-sampling required	Delivered parts are accepted as exceptions. Delivery of products that do not meet the complete scope of sampling is allowed only for a limited time or quantity. The conditions are communicated to the supplier and must be adhered to. Re-sampling (of the remedied deviations) is necessary.
Refused, re-sampling required	The delivered parts are not usable. Delivery of products is not permitted. A new sampling is required.

3.7 Representative sampling

For families of parts that are not tool-related (similar parts that differ only in details), representative sampling is reasonable. Here the most complex representative of this parts family is fully sampled, and the other items in this part family are sampled by cover sheet sampling, which must contain a reference to the representative item.

4. Ensuring supply reliability in the series

4.1 Series delivery

The supplier must ensure that there is a production process and product approval (PPA) from Benedict GmbH. Additionally, defect-free products absolutely must be delivered by the supplier to Benedict.

To assess quality performance in series, the supplier must provide the relevant data, information and experience for continuous product improvement and production optimization.

4.2 Test plan

The supplier's test plan must consider not only the Benedict GmbH specification documents, such as drawings, plant standards, specifications and data sheets, etc., but also the results of previous production experience with similar products. Most significant are the PM-marked mass and the product properties.

4.3 Scope of testing

If only good leaving inspections are provided for testing the quality characteristics, they must be oriented toward standardized random sample plans according to

- ISO 2859-1 Attributive random sample testing
- ISO 3951-1 Quantitative random sampling.

4.4 Statistical process control (SPC)

In series production, if Benedict requests, the supplier must monitor the product characteristics on the drawing with the PM using a suitable process of statistical process control (SPC) in order to react quickly to process changes. The supplier's choice of a suitable control card must focus on the character of the variables (quantitative or attributive), the scope of random sampling, and the number of units produced.

4.5 Quality records and retention periods

Types of documents: The supplier must properly store and keep available the specification documents and quality records regarding completion of his quality assurance measures at a location suitable to them:

- Drawings and other specifications
- Documents of product and process approval
- Material analysis certificates;
- Tests reports for series production;
- Traceability documentation.

4.6 Production and test equipment provided

If Benedict provides the supplier with production and test equipment, load carriers and other equipment, the supplier must include them in his management system as his own production and test equipment.

4.7 Component deviation/ special approval

Defective products that the supplier deems suitable for the intended use.

Before delivery, if the supplier determines that the produced product does not reflect the requirements on the drawings or specifications but has been evaluated as suitable for proper use at Benedict, a written proposal for special approval must be submitted. Benedict checks whether the production defect or deviation may cause loss of quality, and if use is possible, approves the goods for delivery through a written declaration to the supplier, as long as this is possible. Upon delivery, the supplier must mark the goods with the Benedict-approved special approval. Special approval is a time- and quantity-limited exception and does not release the supplier from the obligation to analyse the cause of the deviation and to fix it.

Defective products that the supplier wants to rework before delivery.

If the supplier discovers defective products during a production process or the final testing, which he believes can be reworked to OK condition, the supplier must notify the responsible purchaser at Benedict GmbH of the rework, giving the type and scope of the reworking process. The affected products are to be reworked only with prior approval from the responsible purchaser at Benedict. The supplier must mark the reworked goods when they are delivered.

5. Change management/ PCN (Product Change Notification)

5.1 Changes to parts

When the supplier changes parts, it may have unforeseeable consequences under some circumstances. Use of purchased parts in the electrical area at Benedict assumes that characteristics unnoticeable to laypeople may cause disruptive electrical charges that may cause injury or death.

For this reason, Benedict has specified which changes to parts or processes must be approved.

Changes requiring approval

- A change to machines/equipment/production systems/production sites that may affect product quality
- A change to process parameters that may affect product quality
- A change to test parameters and test methods
- A change in (raw) materials
- A change of material supplier or service provider
- A change in procedure

This specification must always be adhered to. Due to the specific use of the parts at Benedict, this is necessary to protect from third-party complaints that may also affect the sub-suppliers.

5.2 Changes to parts at supplier request

For technical or other reasons, changes are necessary to series parts. Such changes must always be approved before delivery to Benedict. The supplier must make the change request in writing before implementation. The supplier is allowed to make only approved changes.
Approved changes to parts must be presented to Benedict through re-sampling of the changed characteristics. Delivery of the changed parts is not permitted until after approval.

5.3 Changes to parts at Benedict's request

Parts may need to be changed due to the needs of Benedict's processes. Generally, the request is made through a modified part drawing. The supplier then has the opportunity to evaluate the change and submit an updated offer.

6. Claims due to quality defects

6.1 Complaints when quality defects are present

If the delivered products show quality defects, Benedict will immediately notify the supplier. Benedict will provide notification of costs incurred. Defective parts are separated from the production process to prevent further processing. In consideration of the severity of the defect, the quantities affected, the expected economic impact (e.g. possible production shut-down, damages to Benedict customers), Benedict specifies what should be done next.

The following scenarios are possible:

- The defective parts are collected at Benedict and sent back to the supplier according to internal procedures.
- The inventories at Benedict are sent back to the supplier to sort out the defective parts or exchange them for perfect products.
- The supplier authorizes Benedict to perform the sorting or rework at the supplier's expense. In this case, the supplier must confirm in writing that he assumes the costs incurred.

If a production shut-down looms, Benedict reserves the right to sort out the defective parts itself or to rework the defects to prevent production shut-down. The supplier is notified as quickly as possible.

The decision on the procedure is agreed to with the supplier. In any case, the top priority is to provide Benedict's production and customers with defect-free parts.

6.2 Marking inspected and reworked parts

Reworked or sorted parts must be marked by a stamp, sticker or colour marking, as is reasonable, on every part or delivery bundle.

Upon redelivery, reworked parts must be kept separate from series parts. On the delivery slip, a notice must also be clearly visible.

6.3 Marking the first delivery of defect-free parts

After processing a complaint, the supplier must mark the first series delivery with defect-free goods on the individual containers. The marking must be highly visible through a sticker or tag.

6.4 Complaint processing by supplier

Benedict GmbH demands that the supplier provide defect-free deliveries and a structured problem-solving process in the form of an 8D report.

Claims processing is evaluated for content and time, and is part of the annual supplier evaluation.

By processing claims through the 8D report, Benedict pursues the following goals: A structured procedure for systematic analysis and remedy of complaints and prevention of future complaints. Repeated defects must be prevented through sustainable implementation of corrective and preventative measures. The actual cause must be determined and documented. Benedict must be informed of the status of processing. The defect process must result in traceable, analysable documentation to be archived.

6.5 Quality improvement projects

Continuous improvement must be part of every supplier's quality strategy. Benedict expects active cooperation by the supplier in continuous improvement of procedures, processes and products, with the goal of permanently improving the entire system.

7. Appendices/links

http://www.benedict.at/upload/11688951-VO-EMPB-Deckblatt-DE-EN-V02.dotx

http://www.benedict.at/upload/11688955-VO-EMPB-Messblatt-DE-EN-V01.dotx

http://www.benedict.at/upload/11688953-VO-EMPB-Prozessfhigkeit-blatt-PM-DE-EN-V01.dotx

http://www.benedict.at/upload/11688957-VO-EMPB-Prfplanblatt-DE-EN-V01.dotx

http://www.benedict.at/upload/11688973-VO-Kennzeichung-von-Erst-mustern-DE-EN-A6-V01.dotx

http://www.benedict.at/upload/11687964-VO-Lieferantenselbstaus-kunft-EN-V01.docx

http://www.benedict.at/upload/11687962-VO-Prozessfaehigkeit-Ma-schinenfaehigkeit-DE-V01.xltx

8. Abbreviations

DIN	German Institute for Standardization
EMPB	Initial Sample Inspection Report (Erstmusterprüfbericht)
i.O	Okay (in Ordnung)
ISO	International Organization for Standardization
NC	Non conformity
PM	Important Test Dimensions/ Properties (Prüfmerkmal)
PPAP	Production Part Approval Process (AIAG)
PPF	Production Part Approval Process (VDA)
QMS	Quality management system
REACH	Registration, Evaluation,Authorisation and Restriction of Chemicals
SAE	Society of Automotive Engineers
SPC	Statistical process control
TS	Technical spezification
VDA	German Association of the Automotive Industry (Verband der Automobilindustrie)
WAP	Outgoing goods inspection (Warenausgangsprüfung)
WEP	Incoming goods inspection (Wareneingangsprüfung)