



VERSCHLUSS- TECHNIK

**Quality Assurance
Management**

Edition 2009/1



GFV VERSCHLUSSTECHNIK manufactures the following products from plastic using injection moulding technology:

- closures
- aerosol protective caps
- cartridges and accessories
- packaging containers
- special items

each in various models and sizes.

The development, construction, mould production, decoration as well as consultation and sales for the individual products are carried out on or from our premises.

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1. Statement of the Management

Statement on quality policy

Our company has been developing, designing and manufacturing packaging for the consumer goods and capital goods industry for decades.

Our traditional company policy is:

Quality means complete customer satisfaction!

All employees are bound by this principle and act accordingly.

A documentary expression of this maxim is given in the form of our Quality Assurance Management document.

The Management requires all employees to carry out their tasks according to the requirements in these documents and thus to contribute to the maintenance of our company philosophy.

GFV VERSCHLUSSTECHNIK

Ulrich Saier



2. Management responsibilities

2.1 Quality Assurance Management documents

The Quality Assurance Management describes our quality assurance system which has been coordinated with the appropriate offices, approved by the General Management and practised since February 1st, 1994. It is continuously updated.

External documentation is not subject to change by the documentation service.



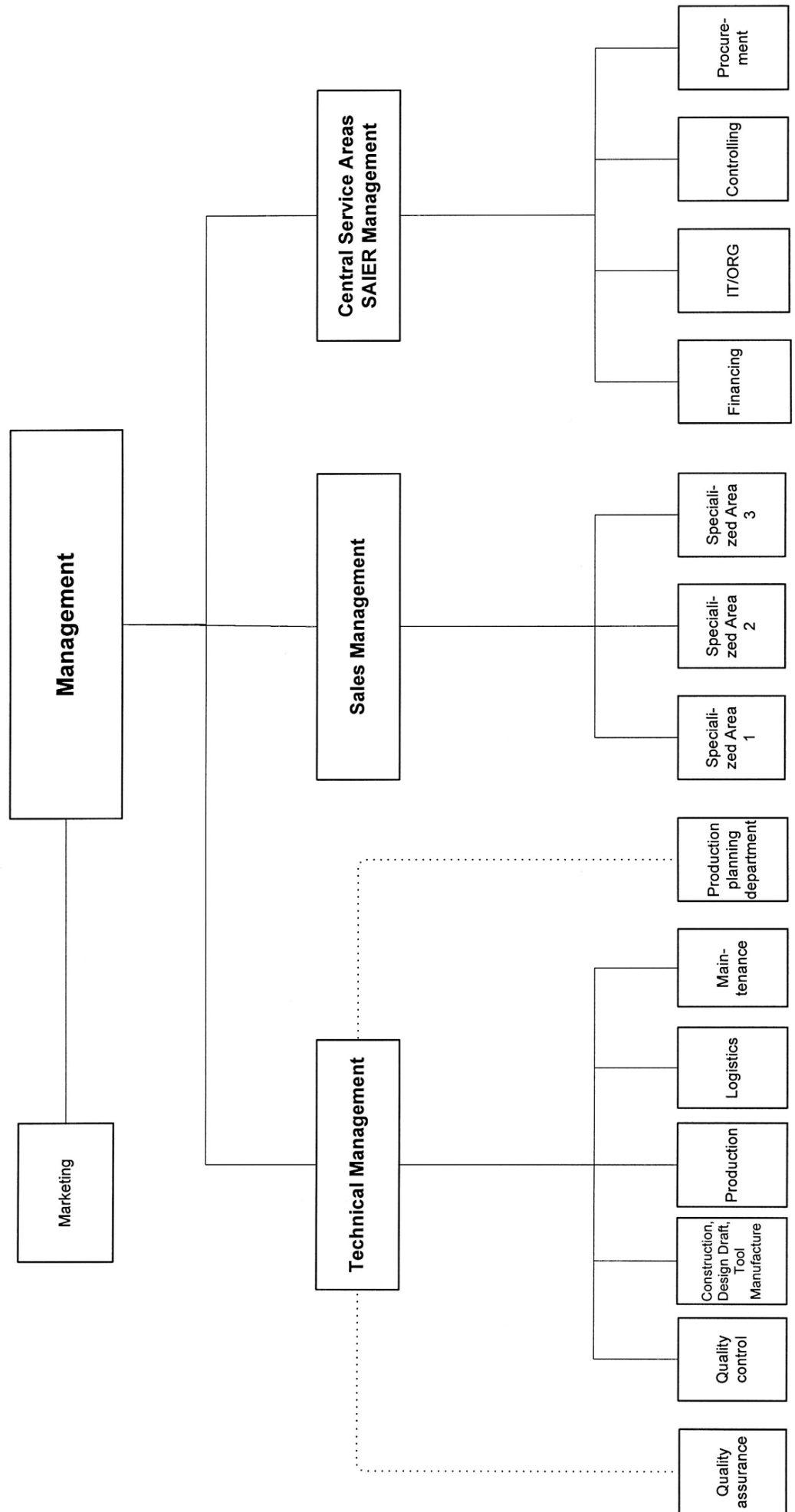
2. Management responsibilities

2.2 Organizational structure

The following organization chart shows our entire organization.



Organization Chart





2. Management responsibilities

2.3 Responsibility and authorisation

The Management carries total responsibility for the business activities, the success of the company and the quality of the deliveries and services provided by the company.

In so doing, the Management is supported by the managers of the functional areas according to the organization chart.

All employees are responsible for the fulfillment of the regulations.



3. Quality assurance elements

3.1 Examination of contract and preparation of implementation documents

The contract is examined from a technical, business and time-limit viewpoint and, if necessary, the sales department shall consult the specialized departments.

Implementation documents are prepared automatically using precisely determined EDP procedures.



3. Quality assurance elements

3.2 Development

The development, design and testing work is conducted by qualified personnel. They have access to required documents such as standards, design guidelines, specifications, calculation documents, and calculation programs.

All essential developments are resolved in coordination with Sales, Technology and Quality Assurance in the form of contract specifications.

For customer-specific developments, the customer's specialized departments shall also be involved.

The implementation of the contract specifications is concluded with the release of the product.



3. Quality assurance elements

3.3 Documentation

The following documents are included in the documentation process including inspection and distribution:

- item drawings
- specifications
- work instructions
- inspection plans
- inspection reports
- CAQ reports
- training plans
- contracts and contract documents

These documents are stored according to the applicable regulations.



3. Quality assurance elements

3.4 Procurement

Procurement parts are grouped according to ABC criteria. The suitability of A-parts is assured through internal release. Suppliers of A-parts are selected according to defined evaluation criteria.

Orders for goods and services are written by Procurement. They contain a complete and clear description of what is to be delivered, including information on, for example, drawings, standards, specifications and quality requirements.



3. Quality assurance elements

3.5 Identification and traceability

The individual production stages and the source of raw materials shall be made traceable by means of the systematic identification of all items during their production and the accompanying documentation.

In case of error the localisation of the affected products is thus possible at any time.

3. Quality assurance elements

3.6 Production planning system

Production planning is conducted through our data processing in coordination with the following systems:

- order recording
- manufacturing planning and coordination
- operational data recording

3. Quality assurance elements

3.7 Production

Manufacturing is carried out according to documentation, which contains all essential information such as:

- designation of the product to be manufactured
- raw materials and dyestuffs to be used according to type and quantity
- production machine
- production mould
- precisely determined machine adjustment data (specifications per article and machine group are entered in an EDP file and can be called up at any time)
- number of items to be manufactured
- date and time of manufacture
- inspection specifications
- packaging specifications

3. Quality assurance elements

3.8 Quality inspections

3.8.1 Inspection of incoming goods

3.8.1.1 Packaging materials

The packaging materials received from suppliers are inspected according to an inspection plan based on random samples for:

- dimensions
- weight
- damage
- appearance (visual inspection)
- number of items

3.8.1.2 Purchased parts

Purchased parts are inspected according to an inspection plan based on random samples:

- visual inspection
- function check
- inspection of dimensions, tolerances

3.8.1.3 Raw materials (plastics)

Before acceptance of the raw material, that is before the unloading of the silo-cars, the following tests are made:

- Inspection of the correct lead sealing of the silo car. Seals are kept for 1 year with reserve sample. Documentation is kept for 10 years.
- Melting index test according to ISO 1133 / DIN 53 735 / ASTM D 1238
PE: MFR 190/2,16 = g/10 min. PP: MFR 230/2,16 = g/10 min.
PE: MFR 190/21,6 = g/10 min.
- Density testing according ISO 1183 / DIN 53 479 / ASTM D 1505
- Visual inspection (impurities, color shade, uniform grain structure)
- Others: smell

Also before unloading the truck, the following transport documents are to be checked:

- Certificate of compliance
- Certificate of purification
- Weigh-bridge ticket
- Letter of consignment
- Delivery note

For each raw material consignment, a certificate of compliance is required.

3. Quality assurance elements

3.8 Quality inspections

3.8.1 Inspection of incoming goods - section 2

3.8.1.4 Color concentrates (master batch)

Visual inspection of the master batch for:

- grain structure
- color
- impurities

3.8.2 Production

3.8.2.1 Regular inspections with immediate effect of the correction during production

The Quality control carries out the following inspections continuously by the shift personnel at pre-determined and individual times. In addition to these test instructions, a dimensional, visual, sensorial and functional control of the items of is carried out, as well as the measuring of the wall thickness at pre-defined points.

All the tests are being conducted according to the inspection instruction and recorded electronically

OPTICAL INSPECTION for:

- flash formation
- distortion
- sprue
- coloration
- surface texture
- adherences
- if necessary, embossed data stamp

3. Quality assurance elements

3.8 Quality inspections

3.8.2 Production - section 2

DIMENSIONAL ACCURACY INSPECTION

All functional dimensions and tolerances are inspected with gauges or other suitable inspection means according to an inspection plan.

FUNCTION TEST

All relevant functions are inspected according to an inspection plan, (for example, opening and pull-off behavior).

WEIGHT INSPECTION

The product weights are checked according to an inspection plan.

WALL THICKNESS INSPECTION

The wall thickness is inspected according to an inspection plan.

INSPECTION OF THE DECORATION

A visual inspection is made according to an inspection plan:

- print color
- positioning of printed image
- register accuracy
- completeness of printed image
- marginal sharpness of printed image
- adhesion of print

3. Quality assurance elements

3.8 Quality inspections

3.8.2 Production - section 3

3.8.2.2 Periodical inspections

INSPECTION OF BLENDS AND MONO-MATERIALS

Production uses material blends or mono-materials in order to achieve optimal product characteristics (resistance, stability and stress cracking resistance) by utilising certain characteristics of the blends or mono-materials.

The blends are formulated, with the aid of a computer, on the basis of the actual raw material values taken from the inspections carried out on receipt of the goods.

For verification, the blends and the mono-materials are continually inspected for:

- melting index test according to ISO 1133 / DIN 53 735 / ASTM D 1238
PE: MFR 190/2,16 = g/10 min. PP: MFR 230/2,16 = g/10 min.
PE: MFR 190/21,6 = g/10 min.
- density test in accordance with ISO 1183 / DIN 53 479 / ASTM D 1505



3. Quality assurance elements

3.9 Accuracy monitoring

3.9.1 Monitoring of production means

All means of production are inspected and serviced at individually determined and appropriate time intervals.

3.9.2 Monitoring of inspection means

The monitoring of the means of inspection is conducted at individually determined and appropriate intervals and is documented.



3. Quality assurance elements

3.10 Treatment of defective units

When error limits reach the critical phase in accordance with internal quality specifications, the production lot is stopped.

Following this, it must be determined whether:

- the items can be sold in promotions
- reworking or sorting the items is necessary and/ or possible
- further inspections are required
- the defective production is to be destroyed.

In order to eliminate the cause of the defect, the person or department finding the erroneous documents or units, shall inform the departments responsible.

The suspension of items and the destruction of erroneous items are documented.



3. Quality assurance elements

3.11 Processing of complaints

Complaints are to be processed according to the work procedure applying the specified testing methods which are based on the determined quality criteria.



3. Quality assurance elements

3.12 Handling of products and their storage, packaging and shipping

Packaging is basically in accordance with GFV standard packaging.

Exceptions are special types of packaging requested by the customer.

The internal transport and shipping are carried out with appropriate transportation means, devices and hoisting gear.



3. Quality assurance elements

3.13 Quality records

Quality records are used to evaluate and improve the quality.

All results from the areas of

- inspection of incoming goods
- production control
- servicing and inspection of means of production

are documented in an appropriate manner in order to use this, if necessary,

- as proof and
- for statistical evaluation.

Depending on the type of document, these records are to be maintained for at least 5 or ten years.

Retention samples from the inspection of incoming raw material are maintained for 1 year.



3. Quality assurance elements

3.14 Training

The specific training and continuous professional development courses for our employees as well as vocational education for recognised professions ensure that all workplaces are manned by adequately qualified personnel.



3. Quality assurance elements

3.15 Statistical procedures

Random tests are carried out on incoming goods, manufactured items and final inspections.

3. Quality assurance elements

3.16 Quality reports (QB)

A quality report (QB) can be submitted using the following formats:

QB 0

Conformance with the contract specifications is confirmed on the delivery bill

QB 1

Quality report (with enclosed sample)

QB 2

Detailed quality report (with enclosed sample)

Quality Report (QB 1)



Order Data

Customer

Customer Order No. / Date

GFV – Order No. / Date

Document Information

We herewith confirm that the quality of the products from the above named order has been inspected according to the valid inspection standards according to the implementation regulations, the technical drawing and the currently valid defect evaluation list for plastic parts and was found to be in order.

Article Characteristics

Exterior Quality

in Order: ☐ Yes ☐ No

Functionality

in Order: ☐ Yes ☐ No

Remarks on the Inspection Results

Measures

Release

☐ Yes ☐ No

Date:

Computer Printout: This document is legally valid without signature

GFV VERSCHLUSS-
TECHNIK GmbH & Co. KG
Reutiner Straße 14
72271 Alpirsbach-Peterzell

Detailed Quality Report (QB 2)



Order Data

Customer

Customer Order No. / Date

GFV – Order No. / Date

Document Information

We herewith confirm that the quality of the products from the above named order has been inspected according to the valid inspection standards according to the implementation regulations, the technical drawing and the currently valid defect evaluation list for plastic parts and was found to be in order.

Individual Proof

The individual items inspected were:

| | | | |
|--------------|-----------|------------------------------|-----------------------------|
| - Distortion | in Order: | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| - Surface | in Order: | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| - Sprue | in Order: | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| - Edge | in Order: | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| - Press fit | in Order: | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| - Print | in Order: | <input type="checkbox"/> Yes | <input type="checkbox"/> No |

Remarks on the Inspection Results

Measures

Release

☐ Yes ☐ No

Date:

Computer Printout: This document is legally valid without signature

GFV VERSCHLUSS-
TECHNIK GmbH & Co. KG
Reutiner Straße 14
72271 Alpirsbach-Peterzell



3. Quality assurance elements

3.17 Quality Assurance Agreement



VERSCHLUSSTECHNIK

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Quality Assurance Agreement

between the companies

**GFV VERSCHLUSSTECHNIK GmbH & Co. KG
Postfach 1125
Reutiner Straße 14**

D-72271 Alpirsbach-Peterzell

and

.....
.....
.....
.....
.....

hereinafter “Contract Partner“

Table of contents of the Quality Assurance Agreement

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5.7 Special releases

5.8 Right to lodge complaints

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1. Purpose

This Quality Assurance Agreement regulates the quality assurance measures in the relationship between GFV VERSCHLUSSTECHNIK and the Contract Partner. Its purpose is to attain the required quality with a high degree of safety at minimal costs.

Thus, an important prerequisite for economic cooperation with assured quality is created.



2. Scope

This quality assurance agreement is applicable to all standard products from GFV VERSCHLUSSTECHNIK, which are regularly procured from the Contract Partner in large quantities.

3. Contact offices

In matters of quality assurance the following departments of both parties will maintain direct contact:

3.1 GFV VERSCHLUSSTECHNIK

Department

Name: Phone

3.2

Department

Name. Phone

4. Date effective / duration of the Quality Assurance Agreement

This Quality Assurance Agreement has been concluded in mutual agreement between GFV VERSCHLUSSTECHNIK and the Contract Partner and declared binding. It becomes effective upon mutual signing and is valid for the duration of the supply and acceptance agreement of the parties.

GFV VERSCHLUSSTECHNIK
D-72271 Alpirsbach-Peterzell

Date:

Legally binding signatures:

.....

City:

Date:

Legally binding signatures:



5. Content of the Quality Assurance Agreement

5.1 Technical documents

Specifications:

- Contract specifications (appendix 1)
- Item drawing per product (appendix 2)

Appendix 2 can be amended at any time without a renewed Quality Assurance Agreement.

For customer-relevant products, additional customer-specific aspects can be agreed.

5.2 Quality Assurance Management

The Quality Assurance Management of GFV VERSCHLUSSTECHNIK is binding and is accepted by the contract partner in its current form.

5.3 Random sample plans

If sampling plans are used, these are to be based on the guidelines of GFV VERSCHLUSSTECHNIK.

5.4 Samples

In the case of customer specific products, the contract partner shall be informed in good time before any change, and/or his approval will be obtained.

In the case of standard products, the contract partner shall be informed in writing on any relevant changes in function or appearance.

Upon request of the contract partner, GFV VERSCHLUSSTECHNIK shall submit samples in the following cases:

- when product changes are undertaken, if function and appearance are affected
- if evaluation is uncertain
- when new prints are required or printing changes made
- when new materials are used

GFV VERSCHLUSSTECHNIK may also send samples to the contract partner in other cases at their own discretion.

The contract partner shall conduct an inspection, document the results in an inspection report and return the samples to GFV VERSCHLUSSTECHNIK together with the inspection report and their opinion or release.

5.5 Quality reports (QB)

- ☐ No quality report is required.
- ☐ A QB 0 report is required, i. e. the conformance with the contract specifications is confirmed on the delivery bill.
- ☐ A QB 1 is required.
[Sample QB 1 according to QAM (Quality Assurance Management) of GFV VERSCHLUSSTECHNIK]
- ☐ A QB 2 (detailed quality report) is required.
[Sample QB 2 according to QAM (Quality Assurance Management) of GFV VERSCHLUSSTECHNIK]

5.6 Inspection of incoming goods by contract partner

Consignments received will be inspected for the following:

- identity
- quantity
- condition of the products
- condition of the packaging (transportation damages)

and, if applicable, for further characteristics, which appear to be necessary to the Contract Partner.

5.7 Special releases

If GFV VERSCHLUSSTECHNIK ascertains deviations, which in their opinion, can be accepted, then a "special release" according to 5.4 is to be requested, in mutual agreement with the Contract Partner.



5.8 Right to lodge complaints

GFV VERSCHLUSSTECHNIK shall be informed of any existing deficiencies, immediately after such deficiencies are noticed, by submission of a “deficiency complaint”. If defects should occur up to the time of filling, then the customer is obligated to provide information on the printing on the carton to allow internal tracing. If deficiencies occur after filling then samples are required for the complaint. The legal statute of limitations is unaffected by this. All sorting or improvement measures are to be carried out at GFV VERSCHLUSSTECHNIK. Other measures require agreement.

5.9 Claims from complaints

Any claims shall be handled in accordance with the currently valid national and international regulations.

Appendix 1 of "5.1 Technical Documents"

Contract specifications

Contents

1. Introduction

2. Confidentiality

3. Amendments

4. Conditions

- 4.1 Production location
- 4.2 Products
- 4.3 Raw materials, dye stuffs, accessories
- 4.4 Measurements, weights and tolerances
- 4.5 Coloring
- 4.6 Optical consistency
- 4.7 Decoration

5. Packaging / storage at GFV VERSCHLUSSTECHNIK

6. Storage, handling, transport by Contract Partner

7. Use of the products



Contract specifications - continued

1. Introduction

These contract specifications define the specific parameters, which shall be employed by the contract partner, of the products.

They are an integral part of the Quality Assurance Agreement.

2. Confidentiality

The Contract Partner and GFV VERSCHLUSSTECHNIK mutually agree to treat all information, which they receive from the other party, as strictly confidential. This also applies to all employees of both companies.

3. Amendments

For every limiting amendment made to the performance specifications, a new quality assurance agreement shall be submitted.

4. Conditions

4.1 Production location

The products of GFV VERSCHLUSSTECHNIK are manufactured on their own production premises.

Any other production locations of GFV VERSCHLUSSTECHNIK meet the quality standards of the parent company in Alpirsbach-Peterzell.

4.2 Products

All products subject to appendix 2, (including any supplements), are subject to this Agreement.

Contract specifications - continued

4.3 Raw materials, coloring material, accessories

For the manufacture of all products, suitable raw materials from selected manufacturers are used.

All raw materials and coloring materials and antistatics used meet the EC guidelines, in particular, the EC guideline 2002/72/EG (concerning materials and items, which are intended to come into contact with foodstuffs).

According to the food regulations of the EC, the institute Nehring, Braunschweig, has carried out global migration tests. All values have been clearly below the defined limiting value.

There were no irregularities when conducting the sensory test and therefore no olfactory or perceptible concerns.

These test results do not free the contracting partner from the obligation of testing his own products.

GFV VERSCHLUSSTECHNIK shall advise, to the best of their knowledge, on the chemical stability and physical characteristics of the packaging and its raw materials, however, this advice is non-binding because GFV VERSCHLUSSTECHNIK is not the manufacturer of the raw materials.

Any customer wishes or enquiries can be forwarded to the manufacturer of the raw materials.

4.4 Dimensions, weights and tolerances

These must correspond to both the drawings and the samples.

4.5 Coloring

The coloring must correspond to the color reserve sample and be "consistent" on all surfaces and without flowmarks and color mixtures.

4.6 Optical consistency

The products must be free of flash formations, sprue, distortion and optical deficiencies.

4.7 Decoration

Screen-printing is the standard decoration process.

For new prints or print changes, the necessary documents shall be provided by the Contract Partner and a proof copy shall be returned to the contract partner for release.

The screen will be produced upon release of the proof copy.



Contract specifications - continued

5. Packaging / storage at GFV VERSCHLUSSTECHNIK

The items are packed immediately after production in cartons on Euro-reusable pallets.

Special packaging can be agreed upon with the contract partner which shall be billed separately and is not subject to any legal obligations subject to of the packaging regulation (VerpVO).

The pallets ready for shipping are stored in a closed warehouse, dry and clean, until loaded.

6. Storage, handling, transport by contract partner

For storage of the products under about 10° C we recommend a temperature adjustment before processing.

7. Use of the products

Unless otherwise agreed, the products of GFV VERSCHLUSSTECHNIK are developed and manufactured as disposable packaging. No liability shall be accepted for any other use.



Enclosure 2 to "5.1 Technical Documents"

List of the products which are subject to the quality assurance agreement between
GVF VERSCHLUSSTECHNIK and the contract partner.

| Product |
|----------------|
| SKUB 45261 R04 |
| |
| |
| |
| |
| |
| |
| |
| |
| |

This list can be supplemented at any time without new QS-agreement.

