

Amphenol

Amphenol-Tuchel Electronics GmbH

Supplier Manual Version 06



Introduction

As a renowned manufacturer of connectors, **customer satisfaction** is our number-one **goal**.

To reach this goal, we need reliable suppliers capable of delivering quality materials and services, who take their social, ethical and environmental responsibilities seriously. Such suppliers help us meet and exceed the high expectations of our customers.

Basic requirements are **100% adherence to delivery deadlines** and a focus on reaching the target of **ZERO-DEFECT quality**.

This manual describes the requirements Amphenol-Tuchel places on its suppliers with regards to the product lifecycle phase of the various production materials; it, together with the purchasing terms and conditions, is a component of any purchasing agreement.

Amphenol-Tuchel expects **proactive** cooperation from its suppliers.

- **Proactive** cooperation means thinking about problems before they arise.
- A **proactive** supplier watches out for potential problems, using the approach of: "I need this information, so I will find it myself," instead of waiting for it to turn into an actual problem.
- Our **proactive** supplier consistently takes care of the environment and safety, by adhering to regulations and using environmentally friendly processes and products free of pollutants.
- A **proactive** supplier takes deliberate action to constantly improve services.

All required documents and information must be provided in German and English at no extra cost.

The agreement can be terminated by both parties, in a written form with 6 months' notice at the end of any month.

The provisions of this agreement apply, unless deviating arrangements are made in individual cases.

Heilbronn, dated 07/19/2018



Michael Klemens
Leiter Supply Chain Management
Leiter Einkauf
Leiter Customer Service
Leiter SQM



Jürgen Plappert
Leiter Qualitätssicherung Automotive
Managementbeauftragter Qualität und
Umweltsysteme

Please note:

Internet address for downloads of the current Supplier Manual and other relevant documents: <https://www.amphenol.de/strategischer-einkauf>

Table of contents

- 1 Qualification phase** 1
 - 1.1 Approval of the supplier** 1
 - 1.2 Product approval** 1
 - 1.2.1 Process planning** 1
 - 1.2.1.1 Project planning..... 1
 - 1.2.1.2 Feasibility analysis 1
 - 1.2.1.3 Process FMEA (P-FMEA)..... 1
 - 1.2.1.4 Process Flow Chart 2
 - 1.2.1.5 Test planning..... 2
 - 1.2.2 Process analysis** 2
 - 1.2.2.1 Measurement and test equipment suitability test..... 2
 - 1.2.2.2 Preliminary process suitability test 2
 - 1.2.3 Product samples** 2
 - 1.2.3.1 Initial product samples..... 2
 - 1.2.3.2 Tests for final approval at Amphenol-Tuchel 2
 - 1.2.3.3 Approval 3
 - 1.2.3.4 Conditional approval..... 3
 - 1.2.3.5 Rejection of initial samples 3
 - 1.2.4 International Material Data System (IMDS)**..... 3
 - 1.2.5 Statutory and regulatory requirements** 3
- 2 Series production phase** 3
 - 2.1 Production**..... 3
 - 2.1.1 Documentation of test results** 3
 - 2.1.2 Internal process audits** 3
 - 2.1.3 Requalification of the product approval**..... 3
 - 2.1.4 Complaints about provided material** 4
 - 2.1.5 Provided material - inventory discrepancy** 4
 - 2.2 Deliveries** (Details are defined in vendor addendum A page 13) 4
 - 2.2.1 Export controls** 4
 - 2.2.2 Security declaration** 4
 - 2.2.3 Supplier declaration** 4
 - 2.2.4 Customs clearance** 4
 - 2.2.5 Working hours of Goods Receivable on business days**..... 5
 - 2.2.6 Delivery form** 5
 - 2.2.7 Order process and approval plans** 5
 - 2.2.8 Order confirmation**..... 5
 - 2.2.9 Under- or overdelivery** 5
 - 2.2.10 Delivery schedules**..... 5
 - 2.3 Packaging**..... 6
 - 2.3.1 Marking**..... 6
 - 2.3.1.1 Marking of products and raw materials in strip form 6
 - 2.3.1.2 Transport packaging 6
 - 2.4 Container management**..... 6
 - 2.4.1 Pre-production containers**..... 7
 - 2.4.2 Series production containers** 7
 - 2.4.3 Packaging data sheet**..... 8
 - 2.4.4 Procurement of reusable containers** 8
 - 2.5 Documentation**..... 8
 - 2.5.1 Traceability** 8
 - 2.5.2 Documentation accompanying the delivery** 8
 - 2.5.3 Safety data sheets** 8

2.6	Incoming goods inspection by Amphenol-Tuchel.....	9
2.6.1	Inspection process.....	9
2.6.2	Complaints.....	9
2.6.3	Statement regarding the complaints (8D report).....	9
2.6.4	Repeat deliveries.....	9
2.7	Supplier evaluation for select suppliers.....	9
2.8	Ownership situation.....	9
3	Additional agreements and regulations.....	10
3.1	Obligation to confidentiality.....	10
3.2	Mandatory information.....	10
3.3	Audits.....	10
3.4	CQI "Continuous Quality Improvement".....	10
3.5	Flammability proof according to TL 1010.....	10
3.6	Emergency plans.....	10
3.7	Exemptions.....	10
3.8	Contacts at Amphenol-Tuchel.....	10
3.9	Storage of third-party property.....	10
3.10	Irregularities and rejection of goods.....	11
4	Social, ethical and environmental responsibility.....	11
4.1	EICC.....	11
4.2	REACH directive.....	11
4.3	Conflict minerals.....	11
4.4	RoHS.....	12
5	Literature.....	12
6	Attachment.....	13
7	Confirmation of the Supplier Manual.....	14

1 Qualification phase

1.1 Approval of the supplier

The supplier must maintain an active quality management system (QM system) adhering to international standards, certified by an accredited agency and meeting at least the standards of DIN EN ISO 9001.

However, we do expect our suppliers to develop a system meeting the automotive requirements of IATF 16949, or that they get certified according to IATF 16949.

In some exceptional cases, non-automotive suppliers may qualify via a system audit according to ISO 9001.

Dealers, which are not certified themselves, must confirm in writing that they only purchase from certified suppliers.

To demonstrate the ability to deliver quality materials and services, the questionnaire titled "Supplier self-disclosure ATEA 1017 A 04.2018" must be completed and submitted to Amphenol-Tuchel. Valid certificates must be attached.

The Supplier self-disclosure ATEA 1017 A 04.2018 must be sent to Amphenol-Tuchel without prompt prior to each repeat audit (every three years), as well as upon request.

The supplier must implement and maintain an environmental management system, which ideally meets the provisions of ISO 14001 and which can be certified, if necessary.

1.2 Product approval

To ensure adherence to the product quality requirements, the following steps must be completed. The supplier is fully responsible for all of his products and services in each implementation stage.

Product samples must be provided in the following cases:

- new supplier
- new part
- new tool
- changed specifications
- changed manufacturing conditions
- new manufacturing site
- long-term suspension of manufacturing (> 9 months)

1.2.1 Process planning

1.2.1.1 Project planning

The planning of the partial steps of a project must be conducted in a suitable manner. The documentation of the project plans must be sent to the competent purchaser along with the tender.

1.2.1.2 Feasibility analysis

The feasibility analysis serves to ascertain whether a product can be provided in

- the required quantity,
- the required quality and cost targets and
- by the deadline.

The results of the feasibility study must be documented. The results will be archived by the supplier and must be made available upon request.

1.2.1.3 Process FMEA (P-FMEA)

Systematic procedures are essential for the analysis of potential problems during process development, production start-up and series production. The FMEA method is an ideal tool for this purpose [1].

A P-FMEA must be prepared or, respectively, amended for each product sample. It must be archived by the supplier and be made available immediately upon request.

[1] *Potential Failure Mode and Effects Analysis (FMEA)*

1.2.1.4 Process Flow Chart

A process flow chart must be created as a basis for the control plan. It must be archived by the supplier and be made available immediately upon request.

1.2.1.5 Test planning

Test planning must be conducted in the form of a control plan according to QS 9000 [2] or IATF 16949. For SC/CC test characteristics, a Cpk value of at least 1.67 must be met. A random-sample test plan with c=0 must be used for random sample tests.

The control plan and the test plan must be submitted along with the product sample.

[2] *Advanced Product Quality Planning and Control Plan (APQP)* QS 9000

1.2.2 Process analysis

1.2.2.1 Measurement and test equipment suitability test

Only suitable measurement and test equipment may be used. The suitability must be demonstrated according to QS 9000 [3] Measurement Systems Analysis (MSA).

Measurement equipment studies must be created or, respectively, amended for each product sampling process. They must be submitted along with the product sample.

[3] *Measurement Systems Analysis (MSA)* QS 9000

1.2.2.2 Preliminary process suitability test

Suitability tests according to [4, 5] must be conducted for all characteristics defined as critical in the drawings (SC/CC characteristics). The characteristics must reach a **Ppk value** of at least 2.00. The results must be submitted along with the product sample.

The analysis must be conducted via an \bar{x}/R card on the basis of 25 random samples with at least 100 individual readings. The data must be extracted from a production run under mass-production conditions with at least 300 consecutive parts. The measurement results are recorded in the same order in which the respective parts were produced. The process suitability of multi-cavity tools can be determined via a suitability test of the outer cavities (upon request by ATE, all cavities must be tested).

[4] *Statistical Process Control (SPC)* QS 9000

[5] *Production part approval process (PPAP)* QS 9000

1.2.3 Product samples

1.2.3.1 Initial product samples

Product sampling processes must always be conducted according to the PPAP process.

Alternatively, they can be presented according to the VDA [Verband der Automobilindustrie (Association of the Automotive Industry)] Vol. 2 (VDA form as amended [6]).

Characteristics, which cannot be tested by the manufacturer, must be confirmed by test certificates to be attached. Parts made in multi-cavity tools must be labeled, tested and logged separately for each molding cavity.

Labeled reference parts with marked measurement points must be sent along with samples of surface parts.

1.2.3.2 Tests for final approval at Amphenol-Tuchel

The parts to be approved must be submitted along with the

- bill of lading (delivery labeled as sample batch with samples for approval to Good Receiving, Attn. QS-MT)
- *test plan and production control plan*
- results of the process suitability tests
- initial sample test report in PPAP form, alternatively, in VDA form
- test drawing with reference numbers
- process flow chart

1.2.3.3 Approval

If the initial samples meet the requirements, a written approval is issued. Hidden defects, which were not detected during the initial sample test, can still be flagged at a later date.

1.2.3.4 Conditional approval

If a conditional approval is issued, the characteristics listed in the report as requiring corrective action must be remedied and all characteristics affected by this remediation must be sampled again. An updated report must be provided along with the corrected parts. Special measures (such as special approval for a specific batch size) will be documented on the initial sample test report.

1.2.3.5 Rejection of initial samples

If the initial samples are rejected, the parts must be corrected accordingly, and the initial sampling process must be repeated. If these are deviations, which were not communicated previously, Amphenol-Tuchel reserves the right to invoice the costs of the repeat sampling process.

1.2.4 International Material Data System (IMDS)*

The IMDS archives and manages all materials used in automotive manufacturing.

Suppliers of Amphenol-Tuchel and their subcontractors are required to register the materials used in the parts supplied to Amphenol-Tuchel with the IMDS during the initial sampling process and to keep these registrations up to date (IMDS no.: 12127).

The responsibility for the accuracy and completeness is borne by the supplier.

*More information is available under <https://www.mdsystem.com> or at the ATE IMDS-Guideline N 22 000 023.

1.2.5 Statutory and regulatory requirements

The supplier must document and ensure that all provided processes, products and services conform to the current applicable statutory and regulatory requirements of the exporting country, the country of receipt and the country of destination specified by the customer, provided they are notified to the supplier.

2 Series production phase

2.1 Production

The production must be conducted according to the conditions stipulated in the QM system of the supplier or, if applicable, according to those arranged with Amphenol-Tuchel.

2.1.1 Documentation of test results

The supplier must document quality requirement documents and quality records (such as test results, ...) in an appropriate form. Unless agreed upon differently, these documents must be archived securely for 15 years following the product life cycle. Quality requirement documents and quality records must be handed over to Amphenol-Tuchel within 24 hours following a respective request. The full traceability to the raw material must be guaranteed.

2.1.2 Internal process audits

Internal process audits must be conducted in the context of the continuous improvement process (CIP) and to determine whether the applied processes and procedures meet the specifications and requirements. The audits must be conducted at suitable intervals or, if necessary, event-driven (unscheduled). The weaknesses listed in the audit findings must be remedied with effective action plans, which list the remedial measures, the competent parties and the completion dates.

2.1.3 Requalification of the product approval

The requalification must be conducted according to the provisions in IATF 16949 or, if applicable, according to customer-specific provisions.

The supplier will present a respective requalification plan. The supplier will show proof of completed requalification annually.

2.1.4 Complaints about provided material

If the supplier ordered materials from Amphenol-Tuchel, and if Amphenol-Tuchel provided defective material for said order, the supplier must (insofar as the material is unusable) file a complaint about this material with Amphenol-Tuchel, by completing the form ATE 554 "Complaints about provided material" and sending it to lbt-automotive@amphenol.de.

After the receipt of the complaint, the supplier will be issued a Q2 number by Amphenol-Tuchel, which he must include when returning the defective products.

2.1.5 Provided material — inventory discrepancy

Inventory discrepancy should be addressed as follows.

- Actual inventory smaller than book inventory
If the actual inventory is smaller than the book inventory, it is assumed that the discrepancy was withdrawn from the inventory and only "disappeared" after the withdrawal. The discrepancy in inventory therefore is booked as a withdrawal, and the withdrawal, that is, the discrepancy, must be paid for.
- Actual inventory greater than book inventory
If the actual inventory is greater than the book inventory, it is assumed that larger withdrawals were booked from the warehouse than actually took place. The discrepancy in inventory therefore is booked as a cancellation of withdrawals. This means that the exact opposite settlements are performed than were done in the case of "Actual inventory smaller than book inventory." The book inventory must be adjusted to reflect the actual inventory.

2.2 Deliveries (Details are defined in vendor addendum A page 13)

2.2.1 Export controls

The supplier confirms that he will only deliver products, goods and services, which adhere to the provisions of the export controls under current applicable law, of EU regulations and of US laws. The supplier will review this adherence on a regular basis. This review is already applicable to the request for sample parts.

Amphenol-Tuchel must immediately be informed of any positive findings during such a review.

For the examination of the export control the latest lists, ordinances and legal regulations are to be applied.

If freights, goods or services are listed in the respective "Dual Use Regulation", the goods list "Annex 1 Export List Part A" or "Annex 1 Export List Part B", this must be reported to Amphenol-Tuchel. If non-listed goods are subject to an export restriction, this must be reported to Amphenol-Tuchel, too.

2.2.2 Security declaration

The supplier will issue a security declaration. This security declaration serves to secure the end-to-end supply chain.

If the supplier holds AEOC or AEOS status, or if an application for such a status already has been filed, the security declaration is waived. In this case, proof must be provided for the respective status.

AEOC = Authorized Economic Operator Customs

AEOS = Authorized Economic Operator Safety

2.2.3 Supplier declaration

Amphenol-Tuchel annually (October/November) requires a long-term supplier declaration for the following for all series production parts, which are delivered to Amphenol-Tuchel. This long-term declaration must be prepared according to the current provisions of the implementation regulation of the UCC (Union Customs Code).

Amphenol-Tuchel also requires a supplier declaration for sample and pre-production parts. If no long-term declaration can be issued, an individual declaration referring to the specific delivery suffices in this case.

2.2.4 Customs clearance

The supplier must provide information regarding the country of origin and the customs tariff number (HS code) with reference to the ATE article number. For products originating from outside the EU, the country of origin and the customs tariff number must be listed in the commercial invoice. ATE must be notified of changes immediately.

2.2.5 Working hours of Goods Receivable on business days

The operating hours for Goods Receiving of the purchaser must be observed.

Delivery hours Heilbronn: 8 a.m.-9 a.m. 9:15 a.m.-12 p.m. 12:30-4p.m.

Delivery hours Tunisia: 8 a.m.-4 p.m.

Delivery hours Macedonia: 8 a.m.-4 p.m.

If delivery outside of the regular operating hours becomes necessary in exceptional cases, such deliveries must be coordinated with the competent schedule manager of the purchaser.

2.2.6 Delivery form

In all cases, delivered packages must be segregated according to type and must be delivered with complete containers/cartons/packaging units.

Mixed deliveries and/or incomplete containers/cartons/packaging units are only permitted with prior consent by ATE.

Mixed pallets: These must be clearly marked on the outside and the various products must be clearly and separately visible; the products must be stacked according to type.

Incomplete containers/cartons/packaging units: These must be clearly marked on the outside and must be packed in the top layer.

2.2.7 Order process and approval plans

The entire order process will be conducted via the automated system as much as possible (in particular, approval plans, bills of lading and credit notes). Should the automated system not be available, the order process must be conducted via Fax or Internet/Email.

The quantity to be delivered and the delivery dates follow exclusively from the delivery schedules and/or the individual orders. No order confirmations need to be sent by the supplier for deliveries according to delivery schedule.

2.2.8 Order confirmation

For individual orders, order confirmations must be issued within three business days. Otherwise, the supplier will receive an order-confirmation warning notice along with a request to submit an order confirmation within a certain grace period.

No order confirmation is expected for deliveries according to delivery schedule. If no objection to most-recent effective delivery schedule is raised, the schedule is considered confirmed.

2.2.9 Under- or overdelivery

In general, no under- or over deliveries are accepted. The delivery parameters must be coordinated mutually by both parties (for example, packaging units).

If exact batch sizes cannot be defined exactly for technical reasons, both parties will agree upon under- and/or overdelivery limits.

2.2.10 Delivery schedules

Transfer frequency: 1x per week (and as needed, in case of changes in quantity demanded)

Delivery window: Delivery day(s) according to weekly delivery schedule

Delivery frequency: Deliveries to be conducted in addition to the agreed-upon delivery frequencies/time windows require the approval of the material planning department of the purchaser

Delivery approval: Backlogs and current delivery date. Products that are delivered too early (-3/0 days) or in too great a quantity are sent back at the supplier's expense

Production/material approval: The transfer of a scheduled-delivery request by ATE only results in a purchase obligation regarding the material quantity listed in such a request if this quantity lies within the approval period of the production approval and/or the material approval. Insofar as production and material approvals are agreed upon, these will be listed in the delivery schedule. Otherwise, no purchase obligation by ATE based on scheduled-delivery requests exists.

The listed delivery date always refers to the date the product is delivered to the receiving facility of the purchaser.

The delivery date and the processing times form the bases for the shipping date and the notification date. The supplier is responsible for scheduling these dates and adhering to the same. For deliveries, in which shipping is paid by the recipient, the processing times according to the transport requirement of the purchaser apply; for deliveries with free shipping, the transport time is the responsibility of the supplier.

If the listed delivery date is a holiday in the country/province, where the shipping address of the purchaser is located, the last business day before the holiday is considered the delivery date.

2.3 Packaging

The packaging must securely protect the parts against damage and contamination during transport and storage.

The packaging and shipping sectors must be subject to regular internal audits.

2.3.1 Marking

All deliveries must be clearly marked.

The marking with a white label must be permanently attached to each packaging unit and each container/carton within the packaging unit and must be easily legible (minimum font size 12pt). One label each must be attached to an end side and a long side (on the package and on the container/carton).

The label must ensure the traceability of the respective products.

All labels / good tags must comply with VDA 4994.

Upon request by Amphenol-Tuchel, the labels/tags must meet the requirements in VDA 4902/VDA 4992 or of the GTL label.

Additionally, supplier-specific information may be included in coordination with Amphenol-Tuchel.

2.3.1.1 Marking of products and raw materials in strip form

The information listed in the following must be entered on the card accompanying the strip and the card must be attached to the spool in the pocket set up for this use.

- Catalog no.
- Material no.
- Description
- Quantity
- Manufacturing date
- Drawing index
- Batch

2.3.1.2 Transport packaging

Transport packaging must be labeled in the same way as the product packaging. Additionally,

- the bill of lading no. and
- the order no.

must be included.

2.4 Container management

Packaging and container **[10]** for the delivery to facilities of the purchaser must meet the various requirements. Any and all deviations or discrepancies must be approved by the competent container planning entity of the purchaser prior to the shipment. The purchaser reserves the right to request changes to the containers in coordination with the supplier or for justifiable reasons.

[10] Packaging = usually disposable packaging material = usually reusable containers; in the following, the term "container" is used synonymously for both versions.

General information

- The container should offer protection from damage. The aspects to be considered in this context are: the product, the type of shipping, quality requirements and legal regulations.

- The delivered products must be free of any contamination.
 - Excessively elaborate containers must be avoided as much as possible. Filling materials must be reduced to a minimum. The process-oriented selection of the containers should be made according to the economic and environmental principles of resource management.
 - The container should have no obvious deficiencies regarding its transport-related and protective functions. The applicable norms/regulations must be met. **[11]**
 - Container may not extend beyond the edges of the pallets. **[12]**
 - Health and safety regulations must be met regarding the weight of individual packages; generally, a weight of 12 kg may not be exceeded. Deviations from this provision must be noted on the packaging data sheet in any case.
 - It must be impossible to access the container contents without leaving a visible trace.
 - Reusable containers must be capable of being emptied completely and must be easy to clean.
 - The supplier must provide clearly visible markings necessary for proper handling on the container. The secure adhesion of the marking (label/tag) must be ensured with glue droplets or, if applicable, by using the provided slots. If needed, additional symbols regarding handling and characteristics of the containers must be affixed. Covering the surface with labels is to be avoided. The empty reusable special container should only be marked with the identification label of the purchaser.
 - Reusable special containers must be marked with the identification label of the purchaser following prior coordination. The preparation of these labels will be conducted by the competent container planning department of the purchaser.
 - Requests for empty containers sufficient to cover the container demand of the purchaser must be sent out by the supplier early enough in advance. Five business days should be allowed for between the receipt of the request and the shipping of the containers. Deviating arrangements may be made in writing in a separate agreement.
 - Unless different provisions are agreed upon in the purchase agreement, the responsibility and costs for the return of the empty containers are borne as follows:
 - If the purchaser pays for the freight of the packed containers, the purchaser also will pay for the return of the empty containers.
 - If the supplier pays for the freight of the packed containers, the supplier also will pay for the return of the empty containers.
 - The return of the empty containers is handled either as a direct exchange or as a separate delivery and pick-up.
 - Within the European Union **[13]**
 - Containers and load units, which are used within Europe, may not exceed a height of 1.00 m.
 - Insofar as the volume warrants it, deliveries should be conducted on Euro-pallets (UIC standard) with a "footprint" of 1,200 x 800 mm.
 - For products with destinations outside of the European Union **[14]**
 - The IPPC standard for wood packaging must be met.
 - Containers and load units, which are used outside of Europe, must be stackable, unless the purchaser agreed to a different arrangement. In that case, the notice "Do not stack" must be affixed to the container.
 - The use of the disposable and reusable containers depends on the location of the actual manufacturing facility and on the distance between the sites.

[11] Euro-pool container = UIC norm, VDA small-load carrier = VDA recommendation 4500 overseas packaging = ISPM 15/IPPC regulation.

[12] Exceptions must be coordinated with the competent container planning department of the purchaser.

[13] Supplier within the EU delivers to a facility of the purchaser within the EU

[14] The supplier delivers to a facility of the purchaser outside of the EU. Relevant is not the supplier address, but the manufacturing site of the purchaser

2.4.1 Pre-production containers

Up to the point in time, at which the containers agreed upon for the batch production (see below) are used, it is solely the responsibility of the supplier to provide the purchaser with a suitable, secure container solution meeting the applicable regulations at his expense (the supplier's expense). All container solutions must be approved by the purchaser prior to their use.

2.4.2 Series production containers

- Series-production containers (including emergency packaging and spare-parts packaging) will be approved specific to a product by the container planning department of the purchaser.
- The series-production container must be planned in such a manner that the scheduled order quantities can be met.
- Tool costs for special containers must be listed separately for the purchaser.
- Any standard container must be approved by the purchaser. Once approved, the delivery has to be made using the agreed-upon standard container. However, the use of a standard container does not relieve the supplier of his responsibility to deliver the products free of defects or damages.
- The purchaser may approve the use of a non-standard container at his discretion, for example, for justifiable reasons. Such a container must be agreed upon in due time and must be documented in the packaging data sheet following the coordination with the container planning department of the purchaser.
- The use of alternative containers must be approved separately by the purchaser on a case-by-case basis. Deviations must be appropriately marked on the bill of lading (for example: Emergency packaging, Alternative packaging).
- In case of product modifications (type, form of the components), the supplier is obligated to review the approved batch-production containers and, if necessary, to adjust or replace the same in coordination with the container planning department of the purchaser.

2.4.3 Packaging data sheet

Upon request of the purchaser, the approved standard containers additionally may be documented in writing in a packaging data sheet of the purchaser, which must be signed by the supplier and the competent container planning department of the purchaser.

2.4.4 Procurement of reusable containers

- The container quantities (including emergency packaging) are agreed upon specifically for each product between the container planning department of the purchaser and the supplier. The product-specific arrangement also applies to the determination of the circulation days and the acquisition of containers.
- The purchaser will only cover the container circulation for no more than 9 to 24 days. Any container needs in excess of this (for example, for batch production) are the full responsibility of the supplier (maintenance, cleaning, availability, disposal, etc.), and the supplier will remain the owner of this respective quantity of containers. Any potential cost allocation to the purchaser or the supplier will be arranged according to the guidelines listed below. The supplier submits his tender on the basis of this guideline or, if applicable, on the basis of a concrete project specification.
- No additional containers will be provided by the purchaser for batch productions, buffer inventories, rotations and similar factors requiring additional quantities at the supplier, as well as deliveries between the supplier and his suppliers and processors. **[15]**.

[15] Except if expressly approved by the competent container planning department. Additional container may be leased by the supplier by special arrangement.

2.5 Documentation

2.5.1 Traceability

The supplier must ensure that his products are traceable up to the batch of the raw material. It also is expected that the supplier operates according to the FIFO principle.

2.5.2 Documentation accompanying the delivery

Unless arranged otherwise, for example, in the order (project-dependent information) or in a quality assurance agreement (QAA), the following inspection certificate according to DIN 10204 must be attached to every delivery according to product group:

- Raw material: Approval inspection certificate 3.1
- Surface parts: Test certificate regarding the layer thickness

The required test certificates must be sent along with the products to the email address certificates@amphenol.de at Amphenol-Tuchel.

2.5.3 Safety data sheets

The contractor must ensure that the safety data sheet in effect at the respective time is sent to Amphenol-Tuchel if the delivered materials are subject to the hazardous material regulations of the receiving country at the time.

2.6 Incoming goods inspection by Amphenol-Tuchel

2.6.1 Inspection process

Depending on the quality history, Amphenol-Tuchel will conduct various incoming goods inspections.

The following processes are used:

Normal inspection

Every received good is inspected according to a random sample process according to DIN ISO 2859 part 1, table 1, inspection level I or II, with $c = 0$.

Skip-lot inspection

Following a qualification phase, inspections are made in the skip lot phase. In the case of objectionable findings, the process immediately jumps back into the qualification phase.

Waiver of inspections

Amphenol-Tuchel will only conduct an inspection for identity, quantity and transport damages in the context of the receiving the goods.

2.6.2 Complaints

If defects are found in the parts, the responsible supplier will receive a written complaint.

If necessary, the supplier must immediately make enough personnel available to remedy the problem on site. Any consequential damages caused by the respective defect will be charged to the respective supplier according to the applicable commercial regulations. Costs of returns will be charged; replacement deliveries will be invoiced as additional products.

2.6.3 Statement regarding the complaint (8D report)

Such statements must be sent in writing as 8D reports within the required time frame via email to:

LBT-automotive@amphenol.de.

The complaint number (BB no.) and the name of Amphenol-Tuchel QA representative must be included in the subject line.

2.6.4 Repeat deliveries

Repeat deliveries following successful sorting or repairs must be clearly marked on a green label with the complaint number and the repair date. Unless arranged otherwise, the three consecutive deliveries following this one must be inspected and marked in the same manner.

2.7 Supplier evaluation for select suppliers

The data gathered each time goods are received are considered in the supplier evaluation. The main criteria technical quality with the partial criteria incoming-goods inspection and complaints, as well as logistics with the partial criteria accuracy regarding delivery date and quantity, are evaluated with statistical methods.

Additionally, the criteria Costs, Cooperation, Competence Comparison and Miscellaneous are evaluated semi-annually by teams of evaluators. This results in the overall evaluation with the supplier classifications A, A/B, B and C. The evaluation regularly is communicated to select suppliers. Suppliers classified as B and C must submit a written action plan

Suppliers classified as "C" will no longer be considered for requests.

2.8 Ownership situation

If Amphenol-Tuchel makes property available to its suppliers (such as empty containers, scraps, etc.), this property must be treated and managed in good faith and must be accounted for completely.

Amphenol-Tuchel reserves the right to inspect its property — upon mutual coordination — or to request the return of the property.

Losses/damages/shrinkages must be indicated by the supplier immediately.

Amphenol-Tuchel reserves the right to invoice the supplier for such losses.

3 Additional agreements and regulations

3.1 Obligation to confidentiality

All information obtained from the cooperation between supplier and Amphenol-Tuchel must be treated confidentially.

3.2 Mandatory information

The supplier must inform the purchasing department of Amphenol-Tuchel with sufficient advance notice prior to any changes to production processes, materials or parts used in the products, as well as to any relocation of manufacturing sites or any changes to processes or equipment used to inspect the products.

3.3 Audits

The supplier must make it possible for Amphenol-Tuchel to verify the effectiveness of the QM system in the context of audits. For this purpose, the supplier will grant access to his operating sites and will provide an employee with the appropriate qualifications as support during such an audit.

This also applies to customers of Amphenol-Tuchel in the context of audits conducted by Amphenol-Tuchel.

Amphenol-Tuchel regularly conducts supplier audits according to VDA 6.3 as amended.

It is the supplier's responsibility to acquire the questionnaire, if necessary.

The supplier must ensure that the aforementioned authorizations can also be extended to his subcontractors.

3.4 CQI “Continuous Quality Improvement”

CQI refers to a series of process-related technical standards, which may be applied to the products of Amphenol-Tuchel. If these standards are used by a supplier, it is the responsibility of the supplier to once annually audit the manufacturing process via the documents in effect at the respective time and to transmit the results to Amphenol-Tuchel.

The currently valid standards can be accessed on the home page www.aiag.com.

3.5 Flammability proof according to TL 1010

TL 1010 stipulates certain technical requirements related to fire in the materials and/or components. If the product of the supplier is subject to these requirements, the supplier, upon request by Amphenol-Tuchel, will prove the suitability of the respective material/component via a current flammability test according to TL 1010 as amended.

3.6 Emergency plans

An emergency plan must define how deliveries to Amphenol-Tuchel may be continued in a satisfactory manner following a significant event affecting personnel, machines, materials, environment or methods, as well as events of force majeure.

3.7 Exemptions

Deviations or exemptions of the regulations of the Supplier Manual are only recognized if they are documented in writing in a QAA, in the specifications or in an acknowledged annex.

3.8 Contacts at Amphenol-Tuchel

The respective contacts are listed under Inquiries and Orders.

3.9 Storage of third-party property

Goods, products or provided goods, which are the property of Amphenol-Tuchel, must be stored and treated according to the rules commonly used and accepted in this product sector, and they must be accounted for.

If the actual inventory is smaller than the book inventory at any given time, it is assumed that the discrepancy was withdrawn from the inventory and only "disappeared" after the withdrawal. The discrepancy in inventory therefore is booked as a withdrawal, and the withdrawal must be paid for by the supplier.

3.10 Irregularities and rejection of goods

Adherence to the regulations listed herein is a requirement for a smooth logistic procedure. Deviations from the regulations will create additional costs for Amphenol-Tuchel. Therefore, Amphenol-Tuchel reserves the right to charge such costs to the supplier in the case of violations.

Additionally, Amphenol-Tuchel reserves the right in the case of irregularities to return the goods to the supplier and to charge the shipping costs in this case to the supplier. The arrangements for the return shipment will be made by Amphenol-Tuchel. The resulting costs will be borne by the supplier.

The right to raise further claims for compensation of damages against the supplier will remain unaffected by this.

4 Social, ethical and environmental responsibility

4.1 EICC

Amphenol-Tuchel expects its suppliers to adhere to the social laws effective in their respective countries at the given time and that they consider international environmental and ethical standards.

To aid in this process, the self-evaluation questionnaire by the United Nations Environment Programme (UNEP) may be used. Download: http://www.eicc.info/implement_tool.html.

4.2 REACH directive

In order for Amphenol-Tuchel to meet its obligation to inform customers according to Art. 33 REACH, we need information from you on whether the products delivered to us contain substances subject to authorization or declaration or substances included on the candidate list of the European Chemicals Agency (ECHA). If this is the case, we ask that you provide the names of the substances to us in writing and give us information regarding a typical concentration. According to Art. 33(2) of the aforementioned EU directive, we request now in advance and with continuing effect that you, within 45 days of each change related to mandatory information, provide us free of charge with the information according to Art. 33, which is legally required in the context of the transfer of information and, if applicable, to provide us with information regarding any other candidates, or substances subject to authorization or declaration, affected by the directive or the changes to the directive.

Changes can also be related to substances, which:

- Are included in an expanded candidate list, or
- if substances were not or not successfully registered by the target date.

Should you deliver products to us, which do not adhere to the REACH directive, we reserve the right to take measures such as exclusion of liability, claims for compensation of damages, etc.

4.3 Conflict Minerals

The US Congress has signed the "Dodd-Frank Wall Street Reform and Consumer Protection Act" into law. The European Union also will introduce a directive regarding the trade with conflict materials in 2021. This regulation will obligate EU companies to identify, disclose and counter risks in their supply chains. In order to ensure the adherence to the legal requirements, Amphenol-Tuchel has established a process for determining the origin of conflict minerals, using the "Conflict Minerals Reporting Template (CMRT)," a freely accessible and globally standardized questionnaire. Amphenol-Tuchel expects its suppliers to employ this measure, as this is the only way to ensure transparency for conflict minerals in the supply chain. It is the stated goal of Amphenol-Tuchel that all conflict minerals are either obtained from the recycling rotation or have been processed by a mineral smelter certified according to the "EICC GeSI Conflict Free Smelter (CFS)" program.

You can find more information regarding conflict minerals on the home page of CFSI

<http://www.conflict-minerals.com>

4.4 RoHS

RoHS (Restriction of the use of certain hazardous substances in electronic equipment, 2011/65/EU) as amended at the time of the respective delivery are always assumed to be observed by Amphenol-Tuchel.

5 Literature

[1]	<i>Potential Failure Mode and Effects Analysis (FMEA)</i>	QS 9000
[2]	<i>Advanced Product Quality Planning and Control Plan (APQP)</i>	QS 9000
[3]	<i>Measurement Systems Analysis (MSA)</i>	QS 9000
[4]	<i>Statistical Process Control (SPC)</i>	QS 9000
[5]	<i>Production part acceptance process (PPAP)</i>	QS 9000

6 Attachment

Example: 2.2 Deliveries

Vendor Addendum Supplier Manual Version 06							
Parties to a Contract	ATEA Heilbronn		Supplier xxx				
Signer	M. Klemens		xxx				
	SCM Manager		xxx				
Signature + Date							
To be effective from:							
To be effective till:							
Version:	1						
ATE-Description	ATE-Catalog no.:	ATE-SAP no.:	Supplier order description	Order method (Individual order / delivery schedule / consignment stock / etc.)	Order transmission method (EDI / Web-EDI / Fax / SAP-Mail)	Order communication method - day - frequency	Delivery periode ATE / Provision date
Cable gilded	yyy	4.048.222	xxx	Delivery schedule	SAP-Mail	- 1x per week - Wednesday	Friday

7 Confirmation of the Supplier Manual

**Amphenol-Tuchel
Electronics GmbH**

Company: _____
 Street address: _____
 Postal code, City: _____
 Country: _____
 Phone: _____
 Email: _____
 Internet: _____

Number of employees: _____ QS representative: _____ Home workers: _____

Annual sales: _____ Subsidiaries (Location): _____

Is a product liability insurance policy in place?

No Yes. With whom? _____

Does the product liability insurance policy include coverage for warranty cases?

No Yes. With whom? _____ In which amount? _____

Is a recall cost insurance policy in place? No Yes. With whom? _____

Is an environmental liability insurance policy in place? No Yes. With whom? _____

Is Amphenol-Tuchel Electronics GmbH a new supplier? yes; no

Certified management system	Date	Conducted by	Result
DIN EN ISO 9001 *			
IATF 16949 *			
DIN EN ISO 14001*			
Other management system *			
Other management system *			

*** Please include existing certificates!**

With signature provided below, we confirm that we have read and accepted the current version 06 of the Supplier Manual of Amphenol-Tuchel.

Date: _____ Signature: _____