



## Quality Assurance Agreement

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## Introduction

Novotechnik develops, produces and markets precise linear and rotary sensors for different applications in industry and automotive construction.

The high-level of expectations and demands of our customers on the quality of our products necessitates a close and cooperative integration of our suppliers. This Quality Assurance Agreement (QAA) regulates the minimum requirements of Novotechnik which the management system of the supplier has to maintain with regard to quality assurance, in order to satisfy the quality targets also agreed with this QAA for supplied products and services.

## A. General provisions

### A1. Scope, subject of the agreement, standards to be maintained

A1.1 The subject of this QAA is all products and services which are to be supplied by suppliers. The supplier shall therefore provide all supplies and services to Novotechnik in accordance with the provisions of this QAA.

A1.2 Should any individual part of this quality assurance agreement be completely or partially ineffective or unenforceable or become so, the effectiveness of the rest of this QAA shall not be affected. The parties are committed in this case to replace in good faith the invalid or unenforceable provision by a legally effective one that comes closest to the provision originally intended.

A1.3 This agreement is of an indefinite nature. It may however be terminated from either of the two contracting parties in writing with a period of six months to the end of the month. The termination of this Agreement shall be without prejudice to the effectiveness of ongoing individual orders.

A1.4 Both parties undertake to maintain secrecy regarding all information received from the respective other party including the content of this quality assurance agreement and to use it solely in the interests of the contractual terms and conditions existing between the parties.

A1.5 This Agreement sets down the general framework of conditions between the supplier and Novotechnik. Alterations and additions must be made in writing and should be listed under F1 „Supplementary agreements to the QAA“.

A1.6 The following specifications do not replace the ISO/TS 16949, EN ISO 9001 as well as the legal provisions and customer standards.

A1.7 The supplier shall ensure that the products of the supplier have been made in accordance with at least the generally recognized rules of technology. The „generally accepted rules of technology“ include both the minimum requirements for products, processes and services set out in norms, standards and regulations (ISO, DIN, EU, ASTM etc.), as well as the current industry-wide technical standards.

The supplier is obliged to follow the state-of-the-art of science and technology and to document this sufficiently. Should any findings appear from this after objective consideration as relevant for the quality and safety of the products to be delivered, Novotechnik is to be informed without delay in writing, accordingly.

A1.8 Achieving the quality objectives agreed with this QAA does not mean the exclusion of warranty claims, in particular claims for damages by Novotechnik for defective deliveries.

### A2. Supplier's quality management system

A2.1 The supplier is required to introduce and maintain a quality management system based on the international standard ISO/TS 16949.

A2.2 If the supplier cannot develop and certify a management system according to ISO/TS 16949 due to the nature of its business, the supplier shall demonstrate the effectiveness of its management system through a respective certificate according to ISO9001.

A2.3 Valid certificates are to be forwarded to Novotechnik unsolicited. Should a respective certificate be delayed, the supplier shall inform Novotechnik. Similarly, if a certificate is withdrawn, this is to be reported immediately.

A2.4 The supplier shall perform according to the VDA volume 6, parts 3 and 5 at least once yearly internal process and product audits to ensure the effectiveness of its management system - any defects which are detected are to be remedied immediately.

A2.5 As far as Novotechnik provides the supplier with manufacturing or testing equipment as part of the related purchase of supplies, these must be included in his QM system as his own manufacturing and test equipment, insofar as this is not otherwise agreed.

The manufacturing and test equipment shall be clearly and permanently marked as the property of Novotechnik, and handled with the care of a prudent businessman.

### A3. Quality management system of subcontractors

A3.1 The supplier shall obligate his subcontractors to comply with the obligations assumed by him from the requirements imposed with this quality assurance agreement, in particular those according to A2.1 and A2.2.

A3.2 Novotechnik may demand documented evidence from the supplier that the supplier has convinced itself of the compliance of the quality management system of its subcontractors.

A3.3 is the change of a subcontractor on time display Novotechnik. A process and product approval is carried out by the supplier.

### A4. Auditing

A4.1 The supplier agrees, after prior announcement and mutual agreement of the date, to allow system, process and product audits to be carried out by Novotechnik.

A4.2 The supplier shall grant Novotechnik and, if necessary, their customers access to all operational facilities and to inspect quality-relevant documents, unless this were to involve demonstrably proven company secrets.

A4.3 Should corrective actions be required for objective reasons, the supplier shall undertake the preparation of an action plan without delay to implement it immediately and inform Novotechnik accordingly.

A4.4 Novotechnik reserves the right to recognize the positive audit of an automobile manufacturer or automotive supplier after this has been examined, rather than to carry out an audit of its own.

A4.5 The supplier should ensure that its subcontractor may be audited by Novotechnik, if necessary, with the assistance of the supplier and subject to the details contained in this Article 4.

### A5. Specification, individual orders

A5.1 Inquiries, quotations and order confirmations to suppliers are to be issued by the Purchasing Department from Novotechnik. The basis for the assessment of quality shall be the documents included in all individual orders of Novotechnik, such as

- drawings,
- specifications,
- electronic specifications,
- inspection specifications,
- packaging instructions,
- other contractual arrangements,
- this QAA,
- the general terms and conditions of purchase and

- the generally accepted engineering standards.

In case of any conflicting issues, the above documents shall apply in a descending order of precedence. In any case, the terms and conditions of the supplier shall not be applicable.

### A6. Feasibility studies

A6.1 The supplier is obliged to check the documents received or those referred to in the inquiry or quotation for completeness and consistency. In case of any missing information and data to be processed in the order, the Purchasing Department at Novotechnik is to be consulted immediately.

A6.2 As part of the feasibility study, the supplier shall review the technical, economic and scheduling feasibility of inquiries and quotations and to communicate to Novotechnik in a written form any possible risks or potential improvements (in writing, by fax or email). Requests for changes or anything which is not clear should be resolved promptly with Novotechnik. With the submission or acceptance of the offer, the supplier confirms the manufacturing ability of the product according to the given instructions.

## B. Agreements concerning the product, pre-serial phase

### B1. Development and planning at the supplier

B1.1 If the inquiry and/or the awarding of the contract to the supplier includes development activities, the requirements to be set by Novotechnik shall be provided to the supplier in writing, e.g. in the form of a set of specifications, together with all relevant documents. The content of the specifications is to be implemented by the supplier after agreement in text form. After his agreement to the specifications, the supplier shall undertake the successful development corresponding to the content of the specifications.

B1.2 The quality and process planning is to be carried out independently by the supplier; this applies in particular for the - development of new products and processes and the - construction, modification or relocation of tools/tooling.

The results of planning are to be documented for Novotechnik.

B1.3 The supplier undertakes already in the planning phase of products to apply an appropriate project management for procedures and other cross-functional

tasks. The documentation is to be made in the form of QM or project management plans and be compliant with VDA Volume 4, Part 3.

B1.4 In the development phase, the supplier shall use appropriate preventive methods for quality planning, such as e.g. FMEA, reliability analysis, fault tree analysis, mold-flow methods, etc., and document the results for Novotechnik.

B1.5 The preparation and maintenance of an FMEA is mandatory for suppliers, whose products are to be used in the automotive sector.

B1.6 The experience from similar products, such as e.g. process sequences, process data, feasibility studies are to be taken into consideration by the supplier. The supplier shall carry out appropriate process planning such as e.g. work and inspection plans, planning the use of operating equipment, etc. and ensure the suitability of the manufacturing and test equipment.

B1.7 The agreement on this process planning shall take place in the technical discussions with Novotechnik.

B1.8 The respective applicable regulations, guidelines and standards, e.g. with regard to environmental protection, ESD, EMC, functional safety, etc. are to be complied with.

B1.9 Should the supplier see that the agreements made are not being respected, the Purchasing Department at Novotechnik is to be informed without delay.

B1.10 Upon request, Novotechnik is to be granted a right to inspect all documents concerning quality and process planning.

B1.11 For samples and pre-series parts, the production and test conditions are to be agreed between Novotechnik and the supplier and documented. After mutual agreement, they are binding.

B1.12 Serial delivery may only be carried out after an initial sample approval has been made by Novotechnik. The release declaration is to be made in text form.

## **B2. Product characteristics, special features**

B2.1 The special product characteristics and process parameters agreed between the parties in the technical documents, such as e.g. drawings and delivery specifications, must be marked by the supplier, e.g. in the case of the FMEA, the machine, process and test equipment capability examination (MFU, PFU, PMFU) in the process control by a defined symbol for special product characteristics (Identification "§") and taken into consideration.

B2.2 For all special and critical safety product characteristics "§", as well as for functional and process-critical product characteristics, which are marked accordingly in the technical documents by Novotechnik ("inspection dimensions"), the supplier has to carry out a detailed analysis of the production and test equipment according to statistical criteria, which is to be documented for Novotechnik.

B2.3 If no investigations in accordance with B2.1 and B2.2 are possible due to low numbers, the machine, process and test equipment feasibility may also be based on similar products after consultation with the QA department at Novotechnik.

## **B3. Capability of Measurement Processes**

B3.1 The test equipment capability (PMFU) is to be verified for all pieces of equipment used.

B3.2 The verification is to be provided according to VDA Volume 5 or QS 9000 script MSA. Exceptions are only allowed after agreement with the QA Department at Novotechnik.

## **B4. Capability evidence**

B4.1 For special product and agreed process characteristics, machine capability studies (MFU) and process capability studies (PFU) are to be provided. The proof has to be carried out according to VDA Volume 4 or QS 9000 script SPC. Exceptions are only allowed in agreement with the QA Department at Novotechnik. For the test procedure, the following applies:

- Short-term capability study (MFU). Under normal circumstances, at least 50 consecutively made parts, divided into 10 samples of 5 parts, recorded in the temporal order of their removal.
- Short-term capability study (machine capability)  $Cmk > 1.67$
- Preliminary process capability study (PFU). The evaluation is to be made if at least 25 random samples with at least 5 measurements from different lots are available.

Preliminary process capability  $Ppk > 1.67$

- Long-term process capability study (PFU). The investigation must be spread over a longer period commensurate with the process.

A production time period of 20 production lots should be used as the normal case.

Process capability  $Cpk > 1.33$ .

B4.2 If the values mentioned in B4.1 are temporarily not achieved, suitable test

methods must be introduced and corrective actions are to be initiated. Until achievement of the capability values, a 100% test must be carried out to avoid faulty deliveries.

## **B5. Initial and follow-up sampling**

B5.1 The initial sample inspection by the supplier is used to release the serial production when all dimensional, material, functional, safety and process-related criteria of the technical documents - agreed between Novotechnik and the supplier - have been satisfied.

B5.2 Initial samples must be completely manufactured with product which is ready for serial production and test equipment under series conditions and be presented before the first delivery of the series in the agreed amount and within the agreed deadline.

B5.3 The initial sampling for production process and product release is normally according to VDA Volume 2, presentation stage 2, and if necessary according to QS 9000 script PPAP, presentation level 3. The basis of the initial sampling is the EMPB folder and the technical documents of Novotechnik.

B5.4 The target/actual comparison must be documented in the test result sheet. There must be with a clear allocation of the measured values to the technical documents from Novotechnik, e.g. marking the drawings with a pointer. For multiple tools, all process characteristics are to be checked per nest.

B5.5 In order to ensure comparability of the measurement results, if applicable, the test method and measurement method used are to be agreed in advance with the QA Department at Novotechnik.

B5.6 Functional tests as well as any other tests which are described in the technical documents of Novotechnik and agreed between Novotechnik and the supplier, must be conducted and documented for Novotechnik.

B5.7 If all measurements and tests cannot be undertaken by the supplier, the supplier must appoint a suitable and certified testing laboratory at his own expense. Test results from certified testing laboratories are recognized by Novotechnik.

B5.8 The initial samples are to be submitted with the evaluated initial sample inspection report and the documents according to the specified presentation level to Novotechnik.

B5.9 Recognised deviations in the initial samples shall be communicated to Novotechnik in text form prior to the initial sample presentation is made for written approval. Initial samples with deviations,

for which no deviation approval from Novotechnik exists, may not be used as the basis for serial production.

B5.10 The transmission of the complete sampling documentation is to be made electronically using the Novotechnik EMPB folder. Any other type and form of sampling documents is to be clarified in good time with the QA Department at Novotechnik.

B5.11 All initial sample delivery is to be packed separately and to be marked with a unique identification as initial samples.

B5.12 If the initial samples are rejected as part of the counter-check by Novotechnik due to deviations so that more samples are required, new initial samples are to be presented together with the initial sample inspection report. The supplier shall bear the additional costs.

B5.13 Deviations from the agreed technical documents, which were not established during the production process and product release, entitle Novotechnik to register a respective complaint at a later date and direct a request to remedy this to the supplier.

## **B6. Reason for initial sampling**

- B6.1 Initial samples are necessary for
- New parts
  - Changes to the product or the packaging,
  - Drawings and/or other specification changes,
  - Changes to purchased parts,
  - Relocation of production facilities at the site,
  - Creation of new tools,
  - Repair and modification of tools with an impact on the product or tool separation, ejector markings, sprue system or similar,
  - Tool relocation,
  - Changes in the production processes, procedures, facilities, also with subcontractors,
  - Change of subcontractors,
  - Exchange of materials,
  - Change of testing laboratories or vicarious agents of the supplier,
  - Changes in test procedures and equipment.
  - Change of production sites,
  - Interruption of delivery and production for more than one year.
- B6.2 Deviations in the nature and scope of the initial sample inspection by the supplier are only permitted following the consent of the QA Department at Novotechnik, in particular when
- Interruption of delivery and production for more than one year,
  - Standard parts.

## **B7. Test certificates**

B7.1 Novotechnik is entitled to request a test certificate from the supplier which shall be free of charge, in order to show proof of compliance with the product and process characteristics.  
B7.2 The required test certificates must comply with DIN EN 10204. An allocation to batch and production lots must always be possible.  
B7.3 The requested test certificates must accompany the delivery.

## **B8. Material data compilation system IMDS**

B8.1 Material data collection is used for all supplied products used in the automotive area and is an integral part of sampling. The input and maintenance of material data in the IMDS international material data system is carried out by the supplier. Further details are regulated according to VDA Volume 2.  
B8.2 If this data is not documented in IMDS according to the applicable standards or transmitted to Novotechnik, a possible release is given with constraints.

## **B9. Release for serial production**

B9.1 After successful counter-checking of the initial sample test report by the Purchasing Department at Novotechnik, the supplier receives the test results with a corresponding decision about the release in text form.  
B9.2 Serial production may only be started after release of the initial samples by Novotechnik. The release does not absolve the supplier from his liability for any defects.

## **B10. Right to reserve approval in the case of changes, termination**

B10.1 The supplier informs the Purchasing Department at Novotechnik about any planned changes in the sense of B.6 in text form. Before any change, the supplier is obligated to obtain the consent of Novotechnik, which shall be made in text form, and to provide the applicable proof of the quality of this change.  
B10.2 The decision with regard to initial sampling requirements and scope is the responsibility of the QA Department at Novotechnik.  
B10.3 All changes to the product and the production process are to be documented by the supplier in a product and process history and handed out to Novotechnik upon request.  
B10.4 These requirements shall also apply to electronic components and software.

B10.5 The first three deliveries after changes have been made are to be identified as such in the delivery documentation and on the packaging.  
B10.6 If the supplier introduces changes without the consent of Novotechnik, cf. B10.1 and B6, Novotechnik is entitled to exercise its extraordinarily termination right for supply agreements and to claim damages, if product defects arise on account of these changes. The supplier is not entitled to any replacement or compensation claims in the event of such a termination. The termination shall apply in view of a possible framework supply agreement and this QAA as a written warning in the sense of Article 314, paragraph 2 BGB (German Civil Code). Regardless of the termination option, Novotechnik is entitled to urge the supplier giving a reasonable deadline to provide a remedy within the meaning of Article 314, Paragraph 2 BGB or to warn the supplier. After issuing an unsuccessful warning or setting an unsuccessful deadline to find a remedy, Novotechnik is entitled to terminate any framework contract and this QAA with immediate effect.

## **C. Agreements for the product, serial phase**

### **C1. Product and process quality in series**

C1.1 In order to ensure that the products to be delivered comply with the prescribed quality requirements, the supplier shall perform process and inspection planning for all agreed characteristics.  
C1.2 In serial runs, the supplier is obliged to ensure and certify for all agreed product and process characteristics, using appropriate quality assurance procedures, e.g. statistical process control or control card techniques capable and controlled processes throughout the entire production period.  
C1.3 Production processes must be continuously monitored, assessed and controlled. All employees are to be qualified accordingly, and records should be kept to verify this. The responsibility for the use of effective systems and methods for monitoring the quality of products and processes lies with the supplier.  
C1.4 If the required process capability is not achieved, the product quality is to be assured by appropriate testing methods, if necessary, by manual examination.  
C1.5 In case of process faults and quality deviations, the causes must be

immediately analysed, corrective actions taken, their effectiveness checked, and Novotechnik should be informed of this without delay and continuously in writing.  
C1.6 For the measures referred to in C1.5, the supplier shall provide Novotechnik the necessary data and information in text form upon request.  
C1.7 If dates and delivery quantities cannot be met, the supplier must inform the Purchasing Department at Novotechnik immediately.

### **C2. Approval of deviations**

C2.1 If the supplier cannot deliver specification-compliant products, Novotechnik must be immediately informed thereof, and any necessary deviation approval must be obtained before series production. Novotechnik shall decide whether an approval of deviation shall be granted according to its reasonable discretion.  
C2.2 Deliveries which deviate from the specification may also be made after issuance of a deviation approval only for a certain quantities specified by Novotechnik or for a period of time to be determined by Novotechnik.  
C2.3 The supplier must inform Novotechnik about any recognized deviations without delay, even after a delivery has already been made.  
C2.4 All deliveries which have been made based on a deviation approval have to be additionally labelled. A copy of the deviation approval is to be enclosed with each shipment.

### **C3. Labelling**

C3.1 The supplier shall undertake to label products and packaging according to the requirements of Novotechnik.  
C3.2 The supplier shall ensure that the labelling of packaged products is legible during transport and storage.

### **C4. Traceability**

C4.1 The supplier is obliged to ensure the FIFO principle and the traceability of the production history for all products supplied by him at any point in time.  
C4.2 All determined measurement and test results and process data must clearly be assignable to defined batches and production lots.  
C4.3 The products to be delivered separately according to batches. A mixing of batches and production lots is only permissible with the consent of Novotechnik.  
C4.4 The labelling of batch and production lots must be at least on the packaging and the delivery papers.

C4.5 Batch-relevant information about product labelling itself, if applicable, is to be provided by Novotechnik.  
C4.6 In case of a detected error, the complete and gapless limitation of defective products/batches/lots must be guaranteed.

## **C5. Delivery, reduced incoming goods inspections**

C5.1 The supplier is responsible for inspecting outgoing goods and hence for error-free deliveries.  
C5.2 The incoming goods inspection by Novotechnik is limited to number of items and identification tests, inspections for externally visible transport and packaging damage according to the skip-lot method. Any deficiencies identified here are to be notified immediately. In this respect, the supplier may waive the objection of late notification of defects.  
C5.3 Defects which are not recognized during the incoming goods inspection are immediately communicated to the supplier, as soon as the delivered products have been established according to the conditions of a proper business process. In this respect, the supplier waives the objection of late notification of defects.  
C5.4 The supplier is obliged to align its QM system and its quality assurance activities to this reduced incoming goods inspection. If the supplier determines that defective products were delivered to Novotechnik, the supplier will immediately inform Novotechnik of this in text form and take all necessary measures to avoid and/or minimize consequential damages.  
C5.5 The supplier supplies the ordered products using suitable means of transport to avoid damage and loss of quality, see also C8.  
C5.6 The supplier is obliged to bear the increased freight costs itself in the case of defects (special journeys, special packaging, etc.).  
C5.7 Novotechnik is entitled to participate in inspections carried out by the supplier or its subcontractors and to have such inspections and findings observed by third parties authorized by Novotechnik and to make and carry out inspections itself at the supplier and its subcontractors after previously agreeing an appointment or have these carried out by an authorized third parties.

## **C6. Archiving, retention periods**

C6.1 The obligation to archive all process and product-related documents is 15 years after the end of production of

the individual product /part.

C6.2 The supplier grants Novotechnik inspection in all process and product records upon request. Novotechnik is entitled to make copies of these records.

#### **C7. Complaints**

C7.1 If a defect is determined by Novotechnik or its customers, Novotechnik shall create an error report and send this to the supplier, if possible, together with faulty samples.

C7.2 The supplier shall receive the objected parts, as far as possible, in the agreed amount from Novotechnik at the expense of the supplier.

C7.3 If Novotechnik notifies defects to the supplier, the supplier is obliged to analyse every deviation without delay and to inform Novotechnik immediately in text form about the cause of the deviation, the initiated remedial and preventive actions as well as their effectiveness.

C7.4 Final reports on error analyses must have a meaningful content, be consistent and complete. An 8-D report format is to be used.

C7.5 If downtimes arise at Novotechnik or its customers due to defective product, other considerable economic damage or risk to health, life or limb should threaten, the supplier must provide a remedy in agreement with Novotechnik by taking suitable immediate action at its own costs - if applicable, also with third parties - (replacement delivery, sorting, reworking, extra-shifts, analyses, urgent transport, warnings, product recalls, etc.).

C7.6 The supplier has to ensure that no other products suspected of having defects are delivered.

#### **C8. Transport and packaging**

C8.1 The supplier must ensure that the quality of deliveries to the receiving party is not affected by the means of transport used.

C8.2 Transport media, packaging and labelling are to be agreed with the Purchasing Department at Novotechnik, if they have not already been proposed.

C8.3 The supplier must use reusable packaging. If only disposable packaging is possible, the material must be labelled and recyclable. Labels, tags, adhesive and packing tape straps must not restrict the recyclability of the packaging material.

C8.4 All individual packaged units must be clearly marked and be unambiguous and legible.

#### **C9. Supplier evaluation**

C9.1 The evaluation of suppliers with regard to defects of products, compliance with the agreed quality assurance and reliability is carried out by Novotechnik according to technical and commercial criteria.

The result is communicated annually to suppliers by the Purchasing Department at Novotechnik.

C9.2 The results of this assessment serve as a basis for further forms of collaboration. If the supplier does not achieve the predefined objectives made by Novotechnik, this may lead in particular to a poorer evaluation result and to a lower priority for further delivery projects.

#### **C10. Continuous improvement process**

C10.1 All processes of the supplier must be aligned to a continuous improvement process and the aim to achieve a zero error rating.

C10.2 Internal process/product-related objectives are to be defined by the supplier for the measurement and evaluation of achieved quality, and all relevant staff shall be involved in this process.

#### **C11. Instruction, product monitoring**

C11.1 The supplier has to inform Novotechnik immediately in text form in the context of quality planning and quality assurance about identifiable security risks of the manufactured products and actions to take to prevent risk.

C11.2 Beyond the date of delivery, the supplier has to observe the products manufactured by him, to take into account any developments of its key competitors and to inform himself about the consequences of usage of the product, in particular with regard to the further processing of the product, or product combinations. The supplier will notify Novotechnik without delay in text form concerning recognised potential hazards and risk avoidance.

#### **C12. Compulsory insurance of the supplier**

C12.1 The supplier is obliged to take out and maintain company and/or product liability insurance with cover amounting to at least 5 million EUR per claim and recall cost liability insurance for the automotive industry with adequate coverage for the duration of this QAA.

C12.2 The supplier is obliged to inform his insurer about this agreement and submit written proof to Novotechnik about the existing insurance cover. Novotechnik is entitled to demand proof of

the continued existence of the insurance coverage from the supplier within a reasonable time limit.

C12.3 In the case of a change of insurer, the supplier has to submit unsolicited the corresponding proof to Novotechnik.

#### **C13. Special requirements**

C13.1 The products are used in potentiometric, contact-coated sensors; therefore, all products must be supplied free of silicone and grease.

C13.2 As organic silicone compounds are incompatible with our production processes and products, the use of these substances is only allowed containing silicone impurities up to a certain limit. Contamination of the sample surface is inadmissible if the measured value exceeds 3 Atom% Si (insofar as this can be traced to recyclable organic silicone compounds) or 55 ng PDMS/cm<sup>2</sup> (polydimethylsiloxane).

C13.3 The Novotechnik delivery specification AL 005 Conditions for excluding silicone is to be observed.

#### **D. Environmental protection**

##### **General**

The supplier has to observe the following environmental criteria:

- Ecologically friendly packaging,
- Sparing use of resources,
- Qualification and motivation of all employees for ecological protection,
- Compliance with all applicable laws and environmental regulations.
- Compliance with all safety regulations - in particular for hazardous substances,
- Compliance with all applicable national and international technical standards.
- In the case of initial deliveries or changes, the sending of EC material safety data sheets for all substances involved.

##### **D1. Prohibition and Declaration of contained substances**

D1.1 The use of certain substances in the automotive sector, as well as in electrical and electronic equipment is restricted and/or prohibited by different directives. Furthermore, various associations and processors have published their own lists of substances, where their use is considered undesirable. The supplier shall observe the respective substance restrictions, taking the following provisions into account, whereby the current versions of these guidelines shall apply, accordingly.

D1.2 Directive 2002/95/EC (RoHS) The directive on the restriction of using certain hazardous substances in electrical and electronic equipment.

(RoHS = restriction of the use of certain hazardous substances in electrical and electronic equipment).

D1.3 Directive 2003/11/EC (RoFIS) Compliance with the EU directive on restrictions in the marketing and use of certain hazardous substances and preparations, here the special case of the flame retardant named substances pentabromodiphenyl ether and octabromodiphenyl ether.

D1.4 End-of-life Vehicle Directive 2000/53/EC

Restrictions applicable to certain hazardous substances found in automobiles. The heavy metals mentioned in the directive (ELV = end of life vehicles) are forbidden.

D1.5 ElektroG

The waste electrical and electronic equipment act implements the EU directives RoHS (prohibition of hazardous substances) and WEEE (dealing with electronic waste) in Germany. This law regulates the marketing, return and environmentally sound disposal of electrical and electronic equipment.

D1.6 GADSL

Global list of prohibited substances subject to declaration in automobile manufacturing. The previous single-VDA list (VDA 232-101) was officially replaced by the use of the uniform GADSL (Global Automotive Declarable Substance List). More information is regulated by the VDA 232-102 material data sheet. The material data sheet is a constituent of the production process and product approval. Find more information under: <http://www.mdssystem.com>.

D1.7 REACH-system

Directive on the registration, evaluation, authorisation and restriction of chemical substances (REACH = Registration, Evaluation, Authorisation, Restriction of Chemicals). Manufacturers and importers must demonstrate that their substances, preparations and products are neither a burden on the health of the end-user nor the environment. This chemical data must be passed on to all customers and downstream users. The directive has been in force since June 1, 2007.

D1.8 IMDS

Database of the automotive industry to meet the requirements of the End-of-life Vehicle Directive 2000/53/EC (IMDS = International Material Data System).

D1.9 Independent of these rules and regulations, the national and international provisions for the transmission of information on occupational and environmental protection must be complied with, e.g. EC material safety data sheets

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Subject to change.

according to EU Directive 91/155/EEC.  
In case of any change to the constituents contained in the components, or to the statutory provisions, an updated version is to be provided.

D1.10 Compliance with these requirements by our suppliers forms the basis for ensuring the safe and environmentally sound use of products at Novotechnik. Changes in their composition are to be notified without delay to Novotechnik.

#### **E. Literature references and sources**

EN ISO 9001  
ISO/TS16949  
QS9000 scripts  
VDA publication series  
VDA material data sheet 232  
(the latest version(s) shall apply)  
[www.beuth.de](http://www.beuth.de)  
[www.vda-qmc.de](http://www.vda-qmc.de)

#### **F. Individual changes and supplements**

#### **F1. Supplementary agreements to the QAA**