



**AUTOMOTIVE
PLASTIC
COMPONENTS
BERLIN**

Customer Specific Requirements

For Use with IATF 16949:2016

(4th Revision)

Introduction

Quality professionals from APCB collaboratively developed this document. The content of the document was developed using the Customer Specific Documents of several automotive OEMs and with the consultation of the Joint Task Force for Supplier Quality, Automotive Industry Action Group (AIAG).

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1. Scope

IATF 16949:2016, Customer Specific Requirements Ford & Daimler (<http://www.iatfglobaloversight.org/oem-requirements/customer-specific-requirements/>) and this document define the fundamental quality system requirements for the APCB supply chain. ***This document contains the company specific requirements supplemental, IATF 16949:2016 All IATF clauses which are listed in this document are special requirements from APCB. For not listed clauses, see IATF and OEM CSR's (Ford & Daimler; <http://www.iatfglobaloversight.org/oem-requirements/customer-specific-requirements/>)***

These supplemental requirements may also apply to ISO9001:2015 and other similar registrations as applicable and developed within this document. These supplemental requirements must be included in the certification audit in order to be recognized as satisfying the APCB supplier criteria for third-party certification by an IATF recognized and contracted certification body.

The English language version of this document shall be the official version for purposes of third party registration. Any translations of this document shall be for reference only. Copies of this document are available on the APCB Supplier Portal at <http://apc-berlin.com/>

2. Reference documents

The following reference documents are available through AIAG (<http://www.aiag.org/>) and shall be used to develop the quality system. The latest editions of AIAG reference manuals shall be used.

- Production Part Approval Process,
- PPAP Statistical Process Control, SPC
- Potential Failure Mode and Effects Analysis, FMEA
- Advanced Product Quality Planning and Control Plan, APQP
- Measurement Systems Analysis, MSA
- Materials Management Operations Guideline, MMOG

4. Quality management system

The entire facility (producing automotive products for APCB) must be certified to the applicable standard. Where the entire facility does not produce automotive products, a clear definition of what product lines are registered shall be included in the registration scope.

5.1 Management responsibility

5.1.2 Customer focus

The supplier shall demonstrate customer satisfaction through meeting continuous improvement objectives consistent with a well-developed Action Plan Package. In addition, APCB reserves the right to conduct plant audits and facility reviews upon request.

5.3 Responsibility, authority and communication

5.3.1 Customer representative

The supplier representative is the primary interface with APCB. When the supplier representative changes, or any other significant personnel change occurs, the supplier shall notify APCB Purchasing and Quality within 10 business days of announcement and shall update the Supplier Portal contacts as appropriate.

6.1.2.3 Contingency plans

The supplier shall prepare a contingency plan. Upon request, the supplier shall provide a copy of their contingency plans to APCB.

The supplier shall notify APCB buyer, MP&L and Quality within 24 hours of supplier's production interruption. The nature of the interruption shall be communicated with the immediate actions taken to assure supply of product. Production interruptions may include (but are not limited to) natural disasters, political unrest, war, capacity issues, quality issues, labor strikes and cyber-attacks or other events that prevent the supplier from meeting the specified capacity volumes.

7.1.2 Human resources

7.1.5 Control of monitoring and measuring devices

7.1.5.1.1 Measurement System Analysis

APCB approval of the gauge/check fixture supplier, gauge/check fixture strategy and design is required. Gages not meeting the specification in the AIAG MSA must have a containment plan (such as 100% inspection, gage improvement, or other means) that is approved by SPE.

In order to provide adequate measurement system discrimination, for measurement equipment used to measure special characteristics, the apparent resolution of the equipment shall be at most one-tenth of the total process to six sigma standard deviation (reference AIAG Measurement System Analysis).

7.2.1 Training

The supplier shall ensure that only trained and qualified personnel are involved in all aspects of the design and manufacturing of products supplied to APCB.

7.5.3 Control of records

Production part approvals, tooling records, purchase orders and amendments shall be maintained for the length of time that the part (or family of parts) is active for production and service requirements plus fifteen calendar years unless otherwise specified by APCB for their respective products. This includes any customer owned tooling.

Production inspection and test records (e.g., control charts, inspection and test results) shall be retained for the length of time that the part (or family of parts) is active for production and service requirements plus fifteen calendar years. Records of inspection shall be maintained for each inspection or test performed. Where practical, the actual test result (variable or attribute) should be recorded. Simple pass/fail records of inspection are not acceptable for variables measurements.

Records for internal quality audits and management review shall be retained for Current Year (CY) + three years.

The above does not supersede any regulatory requirements.

7.5.3.2.2 Engineering Specifications

- a. CQI-9 Special Process: Heat Treat System Assessment
- b. CQI-11 Special Process: Plating System Assessment
- c. CQI-12 Special Process: Coating System Assessment
- d. CQI-15 Special Process: Welding System Assessment 2nd Edition #
- e. CQI-23 Special Process: Molding System Assessment

All processes at each supplier and supplier's manufacturing site shall be assessed annually (at all tier levels) using the appropriate assessment available through AIAG, <https://aiag.org> Assessments shall also be performed following any heat treat process and/or heat treat equipment changes.

Any items identified in these assessments as "not satisfactory" or "needs immediate action" shall be addressed using formal root cause analysis and action plans. Action plans shall have corrective and preventive actions as well as containment actions that immediately protect all components being shipped to APCB and/or customer.

Records of the annual assessments shall be readily available and retained (by the supplier) for a minimum of Current Year (CY) + 2 years from the assessment completion date or issue ("notsatisfactory" or "needs immediate action") closure date, whichever is longer.

Ref.: 7.5.3.2.2 (a. b. c. d. e.)

Annual assessments shall be uploaded in APCB Supplier Portal (QS Documents)

Additional OEM customer specifics may also be required depending on the OEM customer, see OEM customer specific requirements and contact your SPE for additional information.

8. Product realization

8.1 Planning of product realization

The supplier shall carry out APQP on all new components supplied to APCB. The supplier will lead the APQP Process for any new component and shall provide updates to APCB as required.

8.2 Customer-related processes

End of life vehicle (ELV) reporting requirements are required as follows: Report into IMDS prior to PPAP of the product and confirm completion for PPAP. Please contact the APCB IMDS Coordinator Deepan Paramasivam (dparamas@apc-berlin.com) for specific reporting requirements. Submit your MDS into the IMDS System to APCB-ID160727 for all parts/components/assemblies. ISO 14001 certification is recommended.

8.3 Design and development

8.3.1.1 Multidisciplinary approach (if mandatory)

FMEA

FMEAs shall be prepared using the AIAG Potential Failure Mode and Effects Analysis reference manual. Design engineering and SPE approval is required for FMEAs for designated safety or regulatory items regardless of the site's PPAP level. Approval may take the form of PPAP approval by SPE and the responsible design engineer, but the preferred method is to sign the documents. Approval of changes to these documents after initial acceptance is also required. APCB reserves the right to require approval of a FMEA for any APCB purchased part from any supplier.

FMEAs may be written for families of parts where batch processes and common tooling are used. Families shall be clearly defined and have a full part number listing of the family. APCB Engineering shall approve the family designations.

Upon request by APCB, the supplier will provide qualified technical support and bring the FMEA to the requestor for review without retention of copies.

8.3.3.3 Special characteristics

Notification of special characteristics shall be accomplished through the use of a Special Characteristic Identification Form. See your SPE for information on the special characteristics requirements.

8.3.4.4 Product approval process

PPAP submissions shall follow the AIAG PPAP manual for the APCB Production Part Approval Process. Subcontractors are to meet all requirements of PPAP.

NOTE: When a PPAP identifies that a part does not fully conform to all specifications, the supplier must obtain an approved Temporary Change (TC) or deviation to authorize the supplier to ship this product. The supplier must retain evidence of the approved deviation. The issue that required the temporary change or deviation must be corrected within 90 days or a second temporary change must be requested.

The supplier does not have authorization to ship parts unless they have an approved PPAP or an approved Temporary Change (TC) or deviation.

PPAP must be submitted on time according to the APCB PPAP required date.

8.4 Purchasing

8.4.2.3 Supplier quality management

For sub-suppliers and subcontractors to the supplier:

NOTE:

- Sub-suppliers to the supplier are those that add significant value to the product.
- Subcontractors provide contract manufacturing services that provide a substantial portion of the process. Examples of subcontractors are painting subcontractors, semiconductor wafer foundries or contract assembly services. In this role, they provide a substantial portion of the value add.
 - a. The supplier is responsible for ensuring that the quality and conformance of their supplier material meets APCB's requirements. Evidence of conformance of the supplier's sub-supplier material shall be made available at APCB's request unless it forms a direct part of the supplier's PPAP submission.
 - b. APCB reserves the right to audit the supplier's sub-suppliers in the presence of the supplier's representative. Coordination of the audit will be through the supplier's representative.
 - c. The supplier shall ensure product delivered to APCB is traceable according to the requirements of IATF 16949:2016 and any program specific requirements.
 - d. The supplier shall cascade the intent of these customer specific requirements to their suppliers where applicable.
 - e. Sub-suppliers to the supplier shall meet the minimum IATF 16949:2016 requirements by having an ISO 9001:2015 quality system through certification.
 - f. APCB bulk material suppliers shall be certified to ISO 9001:2015 and use the APCB Customer Specific Requirements.
 - g. PPAP requirements for bulk suppliers will follow the Appendix F of the AIAG PPAP manual.

8.5.1.1 Control plans

The AIAG Advanced Product Quality Planning and Control Plan reference manual shall be used as a guide for the development and format of Control Plans along with Appendix A in IATF 16949:2016.

APCB engineering and SPE approval is required for control plans for designated safety or regulatory items regardless of the site's PPAP level. Approval may take the form of PPAP approval by SPE and the responsible APCB engineer, but the preferred method is to sign the documents. Approval of changes to these documents after initial acceptance is also required.

APCB reserves the right to require approval of control plans for any APCB purchased part from any supplier.

If a product rework procedure is authorized by APCB all reworked product shall be re-inspected to all control plan requirements and documented procedures.

8.5.4.1 Storage and inventory

The supplier shall use the AIAG MMOG process as a guide to maintain an orderly delivery system.

The supplier shall agree on a packaging specification with the appropriate plant packaging engineer. It is the responsibility of the supplier to ensure that material is delivered to APCB in accordance with the packaging specification and labeling standards approved by APCB. The general specifications can be found on the APCB Supplier Portal.

8.6.2 Layout inspection and functional testing

A layout inspection (to all dimensional requirements) shall be performed annually on at least 5 parts. Where tooling has multiple cavities, tools or centers, the annual layout is conducted on at least one part from each cavity, tool or center, with a minimum overall sample of 5 parts. Note: 5 parts are not required from each cavity, tool or center.

The measurements are to be documented on the APQP/PPAP Evidence Workbook (Prototype or Production Measurement Results section), available through <https://web.qpr.ford.com/sta/APQP.html>.

8.6.3 Appearance items

Suppliers shall develop appearance acceptance standards, or "boundary samples" for APCB approval as appropriate. The APCB appearance approval report (AAR) form and any additional guidelines can be found on the APCB Supplier Portal.

8.7 Control of nonconforming product

Identification of nonconforming product:

- a) The supplier shall implement immediate containment for any nonconforming product, agree to the terms for immediate containment at APCB and evaluate the risk of any material contained in the supply chain. The supplier shall open an 8D investigation and report D0 "Emergency Response Actions" immediately and then update down to D3 "Interim Containment" within 24 hours via APCB Supplier portal (<http://apc-berlin.com/>)
- b) The supplier shall organize their own representatives or agree with the effected plant how to continue containment and sorting at APCB facility within 24 hours.
- c) The supplier, in consultation with the MP&L and Quality department shall immediately replace the non-conforming stock if required.
- d) Completion of the investigation shall be timely and agreed with APCB.

Confirmation of corrective actions:

- a) APCB normally requires several consecutive batches of product free from the non-conformity before any exceptional containment measures at APCB's receiving area will be removed. The duration of the containment measures shall be at APCB's discretion given the due weight of the concern.
- b) If the level of containment is considered inadequate and the corrective actions are ineffective, a reduction will be made in supplier rating.

Any non-conforming product or process output shall be analyzed using the APCB 8D methodology to ensure root cause corrective action and problem prevention.

8.7.1.1 Customer waiver

When the supplier requires a waiver to ship nonconforming material, there are two methods to use:

- a. For a temporary change/deviation bound by time or a lot of material, the supplier shall request a Temporary Change (TC)/deviation to authorize the supplier to ship product. The temporary change/deviation is bound for a specific amount of material or for a maximum of 90 days. The approved temporary change/deviation number is to be added to the shipping documents.

- b. For a temporary change/deviation that should become a permanent change or for the future upcoming changes to process, design, material, manufacturing location the supplier shall process a Supplier Change Request (SCR) and obtain APCB approvals (SCR, PPAP and FCR). The supplier is not approved to ship non-conforming material until the supplier obtains an approved Temporary Change/deviation or an approved PSW cover sheet and approved FCR.

9.1.2.1 Customer satisfaction –supplemental

The APCB Supplier Portal shows the performance of supplier manufacturing location through the web at the Supplier Portal login page. The supplier shall register to access the APCB Supplier Portal at the Gateway to APCB Homepage portal: <http://apc-berlin.com/>. The Supplier Portal generates a Green, Yellow or Red Quality Rating. Maintaining a good quality rating is integral to be considered for future business. A RED quality rating may mean that the supplier will be included on the APCB No-Quote list. The supplier shall commit to reviewing regularly and maintaining their Supplier Portal entries. Where the supplier shows consistent underperformance, Supplier is nominated as TOP 5 Worst Supplier.

9.2 Internal audit

Internal auditors shall have completed an internal auditing training class. It is recommended the supplier have at least one lead auditor who has passed an accredited lead auditor class. The lead auditor may support several sites within the corporate organization. When the supplier does not have an auditor meeting these requirements a contracted third party with the above qualifications shall perform the audits. Audit records shall be retained for a minimum of Current Year (CY) + three years.

NOTE: An individual who is assigned as an Internal Auditor must have successfully completed courses pertaining to the customer specific requirements for “Core Tools”.

9.3 Management review

The supplier’s management shall hold regular QOS performance meetings. The meetings need not be held as one meeting but may be a series of meetings.

10. Quality Improvement

The **Third Party Controlled Shipping** or the **Third Party Supplier Improvement** process will be considered by management when quality improvement actions enacted by the supplier do not stop the flow of non-conforming material to APCB or their Customers. The Third Party Controlled Shipping or Third Party Supplier Improvement process will be initiated based on, but not limited to, any of the following criteria being confirmed:

- a. Part quality non-conformance issue resulting in production line disruption or stop shipment at APCB or at a customer plant.
- b. Part quality non-conformance issue requiring 3rd party containment to assure continuous supply of conforming parts.
- c. Reoccurring IMRR (Incoming Material Rejection Report) issues following ineffective corrective action
- d. Quality issues impacting new product launches at APCB or at our Customer's.

NOTE: If the supplier is placed under either the Third Party Controlled Shipping or the Third Party Supplier Improvement process by the management groups, the supplier will be required to pay all costs associated with the third party process. The supplier must accommodate Third Party personnel and provide adequate floor space for quarantine, containment and inspection as required.

APCB Supplier Chargeback Process

APCB may raise a chargeback notification to the supplier to cover the cost of issues caused by the supplier. Reasonable costs are to be charged back to the supplier as a direct result of supplier responsible concerns. The chargeback notification will be raised by APCB Supplier Portal (<http://apc-berlin.com/>).

Acceptance of this document does not constitute any acceptance of any specific chargebacks, only that the supplier understands the process that will be followed

Lessons learned Practices

As a supplier to APCB, your company is expected to deliver superior product quality and apply continuous improvement practices. An important aspect of achieving this goal is sharing best practices and cascading lessons learned.

Remark

APCB may require the supplier to access or use special supplements. These supplements will be posted on the APCB Supplier Portal.

Date of change	Changes/update - Description of Change(s)
01.08.2016	First Version
14.03.2018	Second Version (Update IATF 16949)
21.09.2018	Revision September 21, 2018 – 7.5.3.2.2 added Ref. d. CQI 15 Welding System Assessment, e. CQI 23 Molding System Assessment & Requirement to upload Annually Assessment in Supplier Portal (QS Documents)
11.12.2019	Revision December 11, 2019 – 7.5.3.2.2 updated Ref.: d. CQI-15 2 nd Edition, Welding System Assessment.