

Supplier Quality Manual

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- 1.0 Purpose:** To provide Suppliers of BRC Rubber & Plastic the supplier specific requirements for the various phases of the life of the product and global supplier development.
- 1.2 Scope:** This applies to all external direct material / service suppliers, including sub-tier suppliers i.e. plating. This document applies to indirect material /service suppliers only when it is required by a BRC purchase order.
- 1.3 Responsibility:**
- Suppliers are responsible for meeting the Supplier Quality Requirements specified in this document. Failure to meet these requirements may result in loss of existing and/or future BRC Business, in addition to reimbursement of cost to BRC for issues resulting in those failures.
 - Suppliers shall adopt the standards Zero (0) Defects and 100% On Time Delivery to BRC.
 - Suppliers are responsible for distribution of any updates to this document.
- 1.4 Location of document:** This document is distributed via BRC website <http://www.brcrp.com> . Printed copies or electronic copies other than in the site are considered uncontrolled copies. While BRC will communicate any major revisions to this documented, suppliers are expected to remain up to date on BRC requirements by frequently visiting the BRC website. Forms and documents referenced throughout this document can be found in the supplier's page, for any questions or clarifications regarding this document, contact BRC Buyer.
- 1.5 Government regulatory compliance & corporate social responsibility:**
BRC suppliers shall comply with all applicable laws, governmental regulations and rules in the countries in which they operate. These regulations relate to the health and safety of workers, environmental protection, use of toxic and hazardous materials and free trade. Suppliers should recognize that applicable government regulations including those in the country of manufacture as well as country of sale.

BRC supports the Automotive Industry Guiding Principles to Enhance Sustainability Performance in the Supply Chain and expects that our suppliers will uphold these standards and cascade them down to their supply chain. The guidelines described the automotive industry's minimum expectations towards business ethics, working conditions, workplace, protect the environment, promote human rights and provide equal opportunity of employees at all levels of the company. In addition suppliers are to engage in sound and ethical business practices in all business dealings.

Suppliers shall, upon request, provide evidence of adherence to these and other global requirements, Suppliers who are interested to self-assess, in Corporate Responsibility and sustain ability are encouraged to utilize the Supplier Self-Assessment which is a standardized tool for gap analysis and process improvement development by AIAG

member companies.

1.5.1 Registration, Evaluation, Authorization and Restriction of Chemicals (REACH)

The European Regulation (EC) No.1907 /2006 concerning the registration, evaluation, authorization and restrictions of chemicals (REACH) entered into force in June 2007, Suppliers shall comply with all applicable REACH requirements that affect the products that they supply to BRC. BRC expects that suppliers have a dialogue with their own supply chain and with BRC regarding all applicable aspects of REACH.

1.5.2 Conflict Minerals:

Suppliers shall adhere to the Conflict Minerals Standards (i.e.: REACH) for the country they are manufacturing in and shipping to.

1.5.3 International Material Data System (IMDS):

- BRC requires our suppliers to report substance information for all types of materials, components or sub components supplied to BRC. All substance and/or materials shall be reported to BRC using the International Material Data System (IMDS) (www.mdsstem.com).
- Suppliers shall submit the required IMDS to BRC in any of the following cases:
 - Upon award of new business, prior to the PPAP submission.
 - Where there are changes on parts or sub-tier supplier parts affect part weight, chemical composition, or adding, changing or removing substances.
 - When new regulations and the prohibited substances list is updated affecting the supplied product.
- Once the supplier IMDS information is approved by BRC, the supplier of the material or component shall indicate such approval in the Part Submission Warrant, (PSW) submitted to BRC regardless of submission level required.
- The supplier shall also implement procedures or control necessary to prevent the introduction of prohibited and restricted substances in materials as specified herein into the final product and/or component supplied to BRC. This may include substances of concern such as End – of – Life Directive, the Restriction of Hazardous Substance Directive 2002/95/EC (RoHS), the latest Global Automotive Declarable Substance List (GADSL), or other required by BRC customers.
- Certificate of conformance from raw material suppliers may be used to guarantee the absence of prohibited materials if any analysis is made of the entire manufacturing process to ensure that all possible areas of material introduction are included. However, it is highly recommended that final product be subject to a chemical analysis to verify the absence of any prohibited materials.
- For materials and mixtures, suppliers shall also provide the BRC Buyer and associated BRC Plant Locations with Safety Data Sheets (SDS), including hazardous information and safe use practices in accordance with the United Nation’s Globally Harmonized System (GHS) of Classification and Labeling of Chemicals and the European Classification, Labeling & Packaging (CLP) regulation.
- Any change or update of legal requirements must prompt a re-check and subsequent update of the data provided to BRC (IMDS Submission, SDS, compliance declaration, etc.).

1.0 BRC requirements to Suppliers:

BRC supplier quality requirements are based on the following key phases:

- Supplier Qualifications
- New Product Launch
- Mass Production
- After Mass Production
- Continuous Improvement

2.1 Supplier qualifications:**2.2 Quality Management System:**

- BRC requires its suppliers to implement and maintain a documented quality management system (QMS) capable of ensuring delivery of quality parts meeting BRC requirements in this documented as well as other specified requirements, The QMS must be prevention based, emphasizing ongoing use of Statistical Methods for quality and process improvements.
- Suppliers of automotive products and services shall develop, implement and improve a quality management system certified to ISO 9001:2015 with the ultimate objective of becoming certified to IATF 16949:2016 standard. At minimum suppliers shall be ISO 9001:2015 certified by an accredited third-party certification issued by a certification body, bearing the accreditation mark of a recognized IAF-MLA member and where the accreditation body's main scope includes management system certification to ISO/IEC 17021, Waiver to the certification requirement is allowed when authorized in writing by BRC's customers.
- The Supplier is responsible for all sub-tier approvals including those suppliers BRC has directed to use. The supplier shall in turn strive for their supplier's quality management system development.
- The supplier qualification process may require BRC qualified personnel to assess the suitability of potential suppliers to become approved.
- Supplier shall send up-to-date certificates to BRC Purchasing representative, at least once per year. Supplier shall immediately communicate any revoked certificates, change in scope or any other amendments to BRC Purchasing representative.
- BRC requires that our suppliers use the latest AIAG Automotive Industry Action Group Standards, including Advanced Product Quality Planning and Control Plan (APQP), Potential Failure Mode and Effects Analysis (FMEA), Measurement Systems Analysis (MSA), Production Part Approval Process (PPAP) and Statistical Process Control (SPC) as extensions to this document, for the publications, visit www.aiag.org.
- Other specific BRC or BRC customer's requirements may apply depending on the type of product, for instance, suppliers and sub suppliers who are identified as special process providers are to adhere to the specific requirements as set forth in the AIAG manual.

2.1.2 New locations for approved suppliers:

New locations for approved suppliers to BRC shall demonstrate compliance at a minimum to ISO 9001:2015, uncertified locations with more than 12 months of operation experience are eligible for certification to IATF 16949:2016. Suppliers may also be required to pass a BRC Supplier Self-Assessment, which BRC may at any time request visit and review results of such Supplier Assessment.

2.1.3 New Suppliers;

New suppliers may be assessed by BRC using this documents requirements, Suppliers that initially do not score acceptable may be allowed to develop action plans and timelines to correct any deficiencies and then request a re-audit to verify implementation of these actions.

2.1.4 Sub-tier supplier management:

Suppliers to BRC shall have capabilities to manage their respective suppliers (regardless of how directed) including PPAP submissions, supplier performance, APQP disciplines and periodic auditing. BRC when deemed necessary will audit the critical processes of sub-tier suppliers to assure that proper controls are in place throughout the entire supply stream.

2.2 New Product Launch / Production part Approval Process Requirements:

New product launch initiate's at design concept and runs through production of new component or assembly. BRC as a tier 1 or 2 for automotive OEM may be required to comply with customer specific requirements. In such case, BRC will in turn require our suppliers to comply with BRC's customer specific requirements.

2.2.1 Advanced Product Quality Planning:

- All suppliers, regardless of component priority and complexity, shall use a disciplined launch and APQP process as the one specified in the AIAG's Advanced Product Quality Planning (APQP) and Control Plan Guidance Manuals. It is essential that suppliers meet the necessary timelines for each project as set forth by BRC or its customer. In addition, completeness and accuracy of documentation submitted is vital to ensuring a successful PPAP and launch.
- Failure to meet timing or PPAP requirements will impact the supplier performance rating and standing with BRC. Suppliers should provide APQP status reports for a new product about meeting the program objectives of quality, cost, performance and timing.

2.2.2 Packaging and Labeling.

- BRC and suppliers shall agree upon the packaging plan as a part of the APQP process, Suppliers shall work with BRC receiving locations to assure that the packaging is sufficiently robust to withstand shipment by land, air, sea, etc. as well as across international borders, and arrive on time without damage.
- BRC expects suppliers to conduct periodic dock audits on packaged materials, Evidence that these audits shall be retained with other lot inspection documentation.
- Supplier shipping to a BRC facility shall meet BRC labeling requirements.

2.2.3 Lot traceability:

- It is a requirement of BRC that all materials being shipped to BRC the supplier must have lot traceability for it. It barcode serial number shall be traceable back through the system.

2.2.4 Material certification requirements and control in production:

- Material certification shall be submitted per EN 10204 unless specified differently by BRC, the minimum Inspection Certificate shall comply with type 3.1 and certification must represent the lot of material that is being shipped. Material certification must flow through and be available through the entire supply chain.
- Product containing chemicals and resins that include UV, heat resistant or other additives affecting performance of final product, an elemental analysis is require as part of the material certification such as FTIR, EDX, or any other applicable analysis. This is required to ensure each batch matches the required formulation. The content of material certification is defined and approved as part of PPAP submission. This content must be carried forward for all subsequent material certifications required.
- Suppliers shall maintain a copy of all procured raw material certifications, which shall be readily retrievable and shall include material specification, description, alloy or resin and condition. The supplier shall maintain the mill certification for procured metallic material and shall include physical properties, chemical analysis and lot numbers. At a minimum, certification must be less than one year old and must be submitted with annual revalidation to BRC. Each heat/ master batch shall be retained by BRC Supplier and submitted upon request.
- Beyond material certification requirements, it is important error proofing and visual aids are employed to ensure the correct material is used during production. It is the supplier's responsibility to ensure ongoing adherence and control during production.

2.2.5 Production Part Approval Process (PPAP):

- Suppliers shall ensure that PPAP documentation and sample submissions are in accordance with the requirements of AIAG's Production Part Approval Process (PPAP) latest edition. Suppliers shall only submit PPAP for production-released drawings and a copy of this drawing shall be included in the submission package.
- Supplier PPAP Checklist is as follows.
 - Warrant
 - Process Control Plan
 - Process Flow Diagram
 - Process FMEA
 - 125 Piece Process Capability Study (CPK-PPK 1.67 or Higher) or as otherwise stated. On all SC requirements.
 - Gage R&R where applicable (Target <10%)
 - Dimensional Layout /With a Marked Print Including GD&T measurements.
 - 1 heat of parts
 - 1 piece per cavity (minimum of 3 piece layout)
 - Laboratory and Scope of Accreditation
 - Material Certification & SDS
 - IMDS Submitted to ID 4036
 - Capacity Study (Run @ Rate)
 - Picture of tooling and of tag showing Property of BRC per Tagging Requirements
- All supplier PPAP's must be submitted prior to part approval.
- Supplier shall not ship product if PPAP is not approved, unless waiver is provided to supplier by BRC in writing.
- Special focus will be given by BRC to evaluate the capability of all Significant & Critical characteristics and the validity of studies. Capability reports must include a histogram, control charts and normality test. Refer to latest AIAG edition of Statistical Process Control.

2.2.7 Sub-tier Contractor PPAP status and evidence

Evidence of sub-tier PPAP completion and acceptance is required for all sub-tier components and at a minimum, must include the PSW, in addition to the PSW, any sub-tier PPAP that influences a designated characteristic must also include at minimum, Material Certification, PFMEA, MSA study, Control Plan, Capability Study and Safe Launch Plan.

2.2.8 Early Production:

Supplier shall plan and implement early production containment and Pre-Launch Control Plan including strict sampling control during ramp-up. Supplier shall submit the plan if requested by BRC representative, within 48 hours of request.

2.3 Mass Production:

Once the manufacturing process for producing a component is successfully validated, the mass production phase begins. During this stage, there are several requirements each supplier must be aware of and follow. Key areas include change management, incident management, sub-tier supplier management and annual revalidation. Additional expectations are all detailed in the following sections.

2.3.1 Change Management:

- Suppliers shall submit a written request to all BRC facilities that may be affected by proposed product and/or process change. In addition suppliers shall ensure they receive an acknowledgement of receipt from BRC and obtain approval prior to implementing the change. This includes changes at a sub-supplier and throughout the supply chain.
- Suppliers are also required to submit all supporting validation data including necessary dimensional reports, “before” and “expected after” capability studies, performance testing, before/after process parameters, updated APQP documentation (PFMEA, Control Plan) and a detailed timeline demonstrating proper change control that identifies necessary safety stock, bank requirements including timing for BRC/Customer validation and designated resources to manage the change. Supplier shall not submit change request within 90 days of SOP (Start of Production), unless agreed to in writing by BRC representative.
- Suppliers shall send the BRS with sufficient time prior to estimated delivery of the First lot, so it allows enough time for approval process. Standard time is 8 weeks, but may differ depending on complexity of change or other factors.
- Authorization to ship production material shall be given after the change is communicated through a signed Part Submission Warrant (PSW). Parts shipped must be identified with IPP Tags,
- Suppliers shall request, in writing a deviation (or concession) before shipping non-conforming material to BRC, A plan to return to normal production and the time required to do so shall be submitted at the same time as written request. Material shipped under approved deviation shall be labeled with the deviation number and expiration date.

2.3.2 Concern Management:

- Upon receiving a Supplier Concern from BRC, suppliers shall implement a containment action within 24 hours.
- Supplier shall use systematic problem solving methods, with corrective action plan being submitted in 8D format within 12 days, unless otherwise specified,
- Suppliers are responsible for all cost and expenses created by any defect on the material supplied and BRC will recover these costs from responsible supplier.
- Suppliers are responsible to provide a timely RMA to return any defective &/or suspect material.
- Purchasing will maintain a log of any concerns and each supplier will be deserted points for any late responses. CAR Plan must be submitted within 10 days or obtain an approved extension.

2.3.3 Supplier audits and visits:

- Any supplier of production material to BRC may be requested to participate in one or more of the audit types, including supplier self-assessments. When notified of a scheduled audit, the supplier should conduct an internal audit prior to the arrival of the BRC audit team.
- With prior notice, suppliers shall allow BRC and BRC Customers, access to both their facilities and their supplier’s facilities to evaluate parts, processes, documents (i.e., FMEA, Control Plan, Instructions, Records), methodologies and systems used in the manufacturing of BRC products.

2.3.4 Annual revalidation:

- Unless otherwise specified, a complete annual layout inspection, including all sub-components is required for all parts &.or material.
- All suppliers shall annually revalidate their respective production components and provide results to BRC upon request. At a minimum it must include full dimensional layout, capability study, as well as raw materials certification, functional & performance results and special process assessments evidence (CQI) Suppliers shall compile revalidation plans and document this in the product control plan for all parts supplied regardless of the product line.
- If the annual revalidation reveals non- conformances to BRC Drawing, supplier must immediately contact all BRC facilities receiving the affected material / product and must supply dimensional data and corrective action plan.

2.3.5 Contingency Plan:

Suppliers shall develop a contingency plan for potential catastrophes which may disrupt product flow to BRC and advise BRC at the earliest in the event of an actual disaster. In an actual catastrophe, supplier shall provide BRC access to BRC tool's and /or their replacements. Catastrophes may include earthquake, floods, hurricanes, fire, etc.

2.3.7 BRC Property – Tools

All tools, manufacturing test or inspection equipment belonging to BRC or their customers shall be permanently marked to clearly show what they are. PROPERTY OF BRC or our customer. These tools will be used for BRC products only, unless an authorization in writing exists.

2.3.8 Material ordering and shipping:

- Suppliers shall comply with BRC's Purchase Order Terms and Conditions.
- Suppliers shall send an Advanced Shipping Notice (ASN). ASN shall be included in the shipment and sent also via email to respective BRC buyer.
- Packing slip shall include BRC Part Number, quantity shipped, lot number and PO number.

2.4 Continuous Improvement:

BRC defines supplier continuous improvement as a holistic approach to overall quality management system improvement. Suppliers should develop and be able to present plans which improve internal systems that support flawless launching of new products /components / sub-systems, value enhancements and cost competitiveness and achievement of agreed upon quality targets, along with a plan to achieve zero defects in support of ongoing operational excellence. Lessons learned shall be included

2.4.1 Supplier Performance Monitoring:

Supplier's performance in quality, delivery and launch is periodically monitored by BRC, using, among other tools, the Supplier Concerns issued, Monthly Supplier Scorecards, and Quality audit visits.

2.4.2 Special Process System Assessments Monitoring:

- Suppliers to BRC shall ensure they audit and manage critical processes such as molding, heat treating and plating using the designated format, AIAG's CQI-9 (Heat Treat), CQI-11 (Plating), CQI-12 (Welding), CQI-17 (Soldering) and CQI-23 (molding) requirements. In addition, suppliers shall also ensure their sub-tier suppliers in the supply chain for the components sold to BRC; perform special process assessments, applying the above mentioned CQI's. Evidence shall be submitted to BRC annually.
- BRC, when deemed necessary, will audit the critical processes of sub-tier suppliers to assure that proper controls are in place through the entire supply stream

2.4.3 Cost Recovery:

Supplier cost recovery will be initiated by BRC when it has demonstrated that the supplier is responsible for shortcomings in quality and delivery. This could include stock at BRC, product in transit, OEM assembly plant, non-conforming received goods, assembly line downtime due to delivery or quality related issues, warranty returns and cost required to analyze and rectify the effects of a quality, warranty, launch or delivery issue, which results in an incident to be raised. Inspection cost, analysis cost, rectification cost, transit costs and costs to manage the implementation of a non-reversible corrective action, may also be included.

2.5 After Mass Production:

Supplier shall be able to provide service parts up to 10 years after mass production stops unless otherwise specified. Request for quotes will be sent when the need for service parts arise.

The lead time that was established for any part during mass production must be honored for service parts.

Reference: QP 8.4.2.1 Supplier Rating Procedure