

SHAW DEVELOPMENT

Supplier Quality Requirements Manual

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Revision Record Sheet

ISSUE	DATE	DESCRIPTION	APPROVAL
1	7/1/2013	Initial submittal	AJD
2	9/16/2013	Updated FAI/PPAP process Para 4.1; added appendix A defining ISIR and PPAP requirements IAW APQP	AJD/KC
3	3/7/2014	Addition of "Special Processes" requirements; Update to address data requirements, PPAP Requirements, prototype, Supplier Deviation, English communication, and record retention.	MS/GL
4	11/10/14	Added a Supplier Deviation form and improved clarification of Supplier Deviation and Change Notification; Added requirement related to Certificate of Analysis (C of A); Detailed "First Article Inspection Report" requirements for prototype materials and Production Part Approval Process for production materials; Changed ISIR to FAIR; Clarified C of C requirement; Clarified manufacturer's material certificate	KH/MC/MS
5	1/5/16	Updated Supplier QMS requirements; pre-Award meeting to be required for new suppliers; clarified section 4.1 PPAP; section 4.2 changed from notification to authorization for changes; section 4.5 changed to add form number and use form on Shaw website; updated section 11 to the new supplier scorecard system and referenced the certified supplier program; added section 13 RoHS / Reach	KH/MC/MS
6	8/31/17	Added reference to the Shaw Exchange and added bid submission or acceptance of PO as acceptance of SQRM in section 1.2; added documentation requirements in section 14; modified supplier certification criteria in section 11; removed signature page; updated Shaw logo	KH/MC/SS

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1. Introduction

1.1 Purpose:

The purpose of this Supplier Quality Requirements Manual (SQRM) is to specify Shaw Development LLC Quality system requirements to our suppliers. Shaw Development LLC recognizes that communication and understanding of goals and expectations are key elements to a successful operation.

1.2 Scope:

This SQRM applies to all intercompany and external Suppliers of production materials as well as direct Outsourcing Suppliers/Subcontractors referenced herein as "suppliers". By acceptance of a purchase order from Shaw Development, or submitting a bid on the Shaw Exchange (eRFQ platform), unless otherwise negotiated in a separate document or a Basic Ordering Agreement, supplier agrees to comply with all requirements set forth in this manual. This manual describes the quality system requirements for current and prospective suppliers. This manual is under the control of Shaw Development LLC Supplier Quality Group, which is responsible for supplier evaluations and surveillance, by assessing their conformance to the system and process requirements of this manual.

1.3 Responsibility:

Suppliers are responsible for complying with the Supplier Quality Requirements Manual. Failure to meet the requirements may result in the loss of existing and/or future Shaw Development LLC business.

NOTE: All documented communications from the Supplier to Shaw Development LLC must be in the English Language.


2. Quality Management System (QMS) Requirements

All current and potential Suppliers to Shaw Development LLC must be able to demonstrate with objective evidence that they have implemented and maintained an effective Quality Management System. Registration to the latest revision of ISO 9001, TS 16949, or a comparable international standard is a requirement. Registration, or lack of, will impact selection of suppliers during quote evaluations. The effectiveness of the supplier QMS shall be assessed by Shaw Development LLC supplier quality engineering. A Supplier Self-Assessment Survey and/or On Site Audit will be completed prior to the approval of a purchasing agreement. Certain suppliers may be considered without registration based on proprietary processes, materials, technologies, etc. on a case by case basis with the approval of quality, purchasing, and engineering. (Note: Approved suppliers to Shaw Development prior to 7/1/2013 will be exempt from the registration requirement, although Shaw will expect the supplier to strive toward achieving registration.)

When requested, the Supplier must also be able to demonstrate compliance to national and/or international standards and regulations for health, safety and environmental impact relative to its business.


2.1 Characteristics

Critical characteristics:

Those having direct bearing on a Safety or Regulatory fit/form/function: Feature must be marked with a notched rectangle with the letters 'CC' . The symbol is to be located in the 'Symbols' directory in Windchill/ProE. All drawings after 08/01/13 shall use the symbol noted above.

NOTE: Drawings prior to 08/01/13 may have used either a hex symbol (●) or a diamond symbol (◆ or ◇) and do not follow the current standards and should be handled according to the notes on the drawing.

Key characteristics:

Those having direct or significant impact on customer satisfaction on Fit/form/function: Features must be marked with an oval with the letters 'KEY' inside . The symbol is to be located in the 'Symbols' directory in Windchill/ProE. All drawings after 08/01/13 shall use the symbol noted above. NOTE: Drawings prior to 08/01/13 may have used either a hex symbol (●) or a diamond symbol (◆ or ◇) and do not follow the current standards and should be handled according to the notes on the drawing.

Suppliers are to develop SPC processes to control Key Characteristics. These controls are to be documented in the Control Plan submitted in the PPAP package. Cpk is to be equal to, or greater than 1.33 Cpk.

3. Pre-Award Meeting

A pre-award meeting for new suppliers offering new or existing customer products or services will be conducted prior to the commencement of supply. Technical, quality, manufacturing, engineering, purchasing, delivery, and business issues shall be reviewed during this meeting to provide the supplier with a thorough understanding of Shaw Development LLC requirements. Shaw Development LLC may, at its discretion, hold a similar meeting for existing suppliers who are being awarded new or existing parts and services.

3.1 Engineering Prototype Sample Submission:

During the development and validation phases of the launch, the Supplier may be requested to work with a Shaw Development LLC New Product Development (NPD) team to resolve production and manufacturing issues prior to production launch.

Prototype samples ordered to a prototype level design record must be submitted with a First Article Inspection Report "FAIR", and numbered "ballooned" print coordinating FAIR dimensional results to the design record. A FAIR is a 1 piece layout to all dimensional, material and performance requirements. The actual layout part sample the data was generated from is to be shipped to Shaw Development LLC and identified as such using the placard found in Appendix B.

Engineering prototype parts with documentation (including supporting data) of specification conformance shall be submitted to Quality for approval prior to Engineering validation testing. All prototype samples must meet the design intent.

4. Approval Process for Production Parts

4.1 PPAP (Production Part Approval Process)

Shaw Development LLC expects every supplier of production material to submit a Level 3 PPAP. Any exception to this requirement needs to be received in writing from a Shaw Development Quality Representative. PPAP levels and their requirements are defined in Appendix A.

PPAP production runs are to follow AIAG definition. The production run shall be from one hour to eight 8 hours of production, and with the specific production quantity to total a minimum of 300 consecutive parts, using production equipment and operators unless otherwise agreed upon by the authorized Shaw Development LLC Quality representative.

The PPAP is to include a full 1 piece layout to all dimensional, material and performance requirements, per cavity. As applicable, all key characteristics, or a characteristic critical to form, fit, or function as identified by Shaw, must be accompanied by process capability studies unless otherwise agreed upon by Shaw Quality.

The study is to be conducted on a minimum of 30 pieces, from a random sample *per cavity* pulled from the PPAP production run. **Any change from this policy must be approved by the Shaw Development LLC Quality representative prior to the supplier's PPAP run.** Key characteristics and those identified by Shaw as critical to form, fit, or function, must demonstrate a Ppk of > 1.33, with an ongoing Cpk of >1.33, and supported by a Gage Repeatability and Reproducibility (GR&R) study indicating a gage error of less than 10% and an overall GR&R of less than 20%. Any deviation from this requirement must be signed off by a Shaw Development Quality Representative. Supporting documents, data and samples, as specified by Shaw Development's Supplier Quality team, **"for the PPAP level requested"** is to be submitted to Shaw Development Quality prior to PPAP Shipment, and in hard copy form accompanying samples.

- In the case of multiple cavities a layout is to be submitted for each cavity and Cpk study samples should be taken from each cavity.
- The actual part sample(s) the layout data was generated from is to be numbered to match the inspection report.
- The inspection report/s, along with a numbered drawing, are to be shipped to Shaw Development LLC.
- The PPAP submission is to be identified using the placard found in Appendix B.

When requested by Shaw Development LLC an IMDS number is to be provided on the Part Submission Warrant (PSW).

Written approval by Shaw Development LLC is required prior to authorization for production. Approval will come in the form of a signed Part Submission Warrant (PSW, F-ENG-1025).

Samples which are not approved will require resubmission by the Supplier to Shaw Development LLC. (Note: Conditional or interim approval may be given. This will give the supplier authorization to produce parts while addressing items in the PPAP submission which were not accepted or missing. This will be done at the discretion of the Shaw Quality Representative. Increased inspections or special checks may be required during this time.)

Key Note: Once PPAP approval is granted there can be no changes to the process or product without Shaw Development re-approving the production part. Changes to the part such as a print change, process change, or change within the supply base may require a new FAIR or PPAP. Changes must follow the guidelines described under "Proposed Design and/or Process Change".

4.2 Proposed Design and/or Process Change

Change Notification: Shaw Development LLC considers all the elements making up the process for all parts, to be critical. The Supplier cannot make changes without Shaw Development LLC approval. Once the process or part change request has been approved by Shaw, the Supplier may proceed with the change. **Change request submission is coordinated with the Shaw Development Buyer.** Failure to comply with these requirements will render the supplier fully responsible for absorption of all costs resulting in failures attributable to the change.

All proposed design and/or process changes must be authorized in writing by Shaw Development LLC. The Supplier shall not make any changes in part design, material, or manufacturing processes without prior approval from Shaw Development LLC. This includes changes to the supply base. See below *tables 1 and 2* for definition(s) of changes requiring notification and /or approval.

Customer Authorization

Suppliers to Shaw Development MUST request approval before making changes to a specification or process for supplied products. Authorization to proceed with a change does not negate the need for a PPAP submission. Shaw Development will notify suppliers if a PPAP submission is required and what level PPAP will be required. Those submissions are to follow AIAG guidelines.

Table 1 - Planned Changes Requiring Authorization Prior to Implementation		
Rule	Requirement	Clarification or Examples
1	Use of other construction or material than was used in the previously approved part or product.	For example, other construction as documented on a deviation or included as a note on the design record (print) and not covered by an engineering change.
2	Production from new or modified tools (except for perishable tools), dies molds patterns, etc., including additional or replacement tooling.	This requirement only applies to tools, which due to their unique form or function can be expected to influence the integrity of the final product. It is not meant to describe standard tools (new or repaired), such as standard measuring devices, drivers (manual or power), etc.
3	Production following refurbishment or rearrangement of existing tooling or equipment.	<p>Refurbishment means the reconstruction and/or modification of a tool or machine or to increase the capacity, performance, or change its existing function. This is not meant to be confused with normal maintenance or parts, etc., for which no change in performance is to be expected and post repair verification methods have been established.</p> <p>Rearrangement is defined as activity which changes the sequence of product/process flow from that documented in the process flow diagram (including the addition of a new process).</p> <p>Minor adjustments of production equipment may be required to meet safety requirements such as, installation of protective covers, elimination of potential electro static discharge risks, etc. These changes can be made without customer approval unless the process flow is changed as a result of this adjustment.</p>
4	Production from tooling and equipment transferred to a different plant location, or from an additional plant location.	Production process tooling and/or equipment transferred between buildings or facilities in one or more locations.

5	Change of supplier for parts, non-equivalent materials, or services (e.g.: heat-treating, painting, plating) that have the potential to affect customer fit/form/function, durability, or performance requirements.	Suppliers are responsible for approval of subcontracted material and services that do not affect customer fit/form/function, durability performance.
6	Product produced after the tooling has been inactive for volume production for 12 months or more.	For product that has been produced after tooling has been inactive for 12 months or more: Notification is required when the part has had no active purchase order and existing tooling has been inactive for volume production for 12 months or more. The only exception is when the part has low volume, e.g. service or specialty vehicles, However, a customer may specify certain PPAP requirements for service parts.
7	Product and process changes related to components of the production product manufactured internally or manufactured by suppliers that have the potential to impact safety, fit/form/function, performance, durability, and/or appearance of the salable product. Additionally, the supplier shall concur with any request by a subcontractor before submission to the customer.	Any change that has the potential to affect customer requirements for safety, fit/form/function performance, durability, and/or appearance requires notification to the customer. NOTE: The safety, fit/form/function performance, durability, and/or appearance requirements should be part of a customer specification as agreed on during reviews.
8	For bulk materials only: New source of raw materials with special characteristics from new or existing subcontractor. Change in product appearance attributes where there is not appearance specification. Revised parameters in the same process (outside pFMEA parameters of the approved product, includes packaging).	These changes would normally be expected to have an effect on the performance of the product.
9	Change in test/inspection method - new technique (no effect on appearance criteria).	For change in test method, supplier should have evidence that the new method provides results equivalent to the old method. (GRR results).

Submission to Shaw Development

Supplier shall obtain PPAP approval prior to the first production shipment in the following situations (see table 2). Conditional or interim approval may be granted to authorize limited production shipments when there are outstanding PPAP requirements.

The supplier shall review and update, as necessary, all applicable items in the suppliers PPAP file to reflect the production process, regardless of whether or not Shaw Development LLC has requested a formal submission. {THIS MEANS ALL 18 SECTIONS OF PPAP} The PPAP file shall contain the name of the responsible Shaw Development contact for product approval activity "person granting the waiver and the date".

Table 2 - Changes Requiring PPAP Approval Prior to First Production Shipment		
Rule	Requirement	Clarification or Examples
10	A new part of product (i.e. a specific part, material, or color not previously supplied to the specific customer).	Submission is required for a new product (initial release) or a previously approved product which has a new or revised (e.g. suffix) product/part number assigned to it. A new part/product or material added to a family may use appropriate PPAP documentation from a previously fully approved PPAP part within the same product family if approved by customer.
11	Correction of a discrepancy on a previously submitted part.	Submission is required to correct any discrepancies on a previously submitted part. A "discrepancy" can be related to: a) The product performance against the customer requirement b) Dimensional or capability issues c) Subcontractor Issues d) Full approval of a part replacing an interim approval e) Testing, including material, performance, engineering validation issues
12	Engineering change to design records (prints), specifications, or materials for production product/part numbers(s).	Submission is required on any engineering change to production product/part design records, specifications or materials.
13	For Bulk Materials only: Process technology new to the supplier, not previously used for this product,	

Change requests are to be requested using the Product or Process Change Notification form (F-ENG-1032) which can be found on the supplier page of Shawdev.com.

- Changes will require a new PPAP submittal to Shaw Development LLC. PPAP submission level will be determined by Shaw Quality.

FAILURE TO COMPLY WILL RESULT IN REJECTION OF MATERIAL, PARTS AND ASSEMBLIES RECEIVED.

4.3 Verification of Purchased Product

The supplier shall allow Shaw Development LLC, all reasonable access to verify, product and subcontracted product conformance to specified requirements, at supplier's premises. Whenever this element is required, Shaw Development LLC shall specify both the arrangements and method of performing the inspections.

4.4 Annual Validation

Annual validation may be required and may include full dimensional layouts, capability studies, material testing and performance testing.

4.5 Supplier Deviation

All products must meet all specification requirements.

Supplier Deviation: In the event of the need for a deviation, the Supplier would need to request a one-time deviation related to product quality. Suppliers are to submit a request for deviation to the Shaw Development LLC buyer. Supplier Product Deviation Request form, (F-QUA-17) which can be found on the supplier page of Shawdev.com, must be approved by Shaw Development LLC prior to product shipment. Directions for form submission are found at the bottom of the form. A copy of the "approved" deviation must be attached to/or placed in shipping carton for all product shipped under the deviation. Any shipments that do not meet production specifications, and which have not received prior approval through the product deviation process, will be subject to rejection. Any rejected shipment, regardless of the end disposition by Shaw, may be applied to a supplier quality rating detailed in Section 11.

4.6 Special Processes

Special Processes are those processes and services that have the potential to directly influence the quality of products manufactured by or for Shaw Development and whose conformance to contract requirements cannot be fully determined upon receiving inspection. These processes may require specialized testing/analysis, a demonstration of operator or equipment capability or proficiency, and may require special controls for monitoring of characteristics

Examples of Special Processes include the following:

- Chemical processing
- Coatings
- Composites
- Thermal processing (including heat treatment, brazing)
- Materials Testing Laboratory Services
- Non-Destructive Testing
- Welding

When Special Processes are part of the Supplier's manufacturing process, or the Supplier outsources special processes for Shaw Development, these processes must be validated to the current industry (i.e. ASTM) standards for those processes prior to supplying a product to Shaw Development.

After validating a special process, a Certificate of Analysis (C of A) for the special process characteristics must accompany the Inspection / Test data, FAI, and/or PPAP documentation submitted to Shaw Development. All Certificates of Analysis must be from a testing laboratory that has been certified to ISO 17025 (General Requirements for the Competence of Testing and Calibration Laboratories) by an accredited 3rd party certification body or the supplier must include their Lab Scope (description of gages, calibration, Work Instructions etc....).

At a minimum, the C of A (Certificate of Analysis) must contain the following information:

- Title: Certificate of Analysis
- Name/Address/Phone Number of the testing facility / laboratory
- Laboratory accreditation information including registration number and expiration date
- Name/Address/Phone Number of the manufacturer
- Product ID and description
- Description of testing performed
- Test references/specifications
- Test Results
- Acceptance criteria
- Names and signature of personnel performing the testing
- Name and signature of person approving the test and associated results
- Date testing was performed

Note: Once a process has successfully been validated, the certificate of analysis from the supplier will be kept on file at Shaw Development for 12 months. Annual validation of all special processes is required and can be achieved by submitting current samples of the product or service to an accredited 3rd party laboratory. Once annual validation is achieved, this information must be referenced for all shipments to Shaw Development during that validation period. Clarification on any "Annual Validation" requirements can be acquired by contacting Shaw Developments Quality and/or Purchasing Representative.

5. Tooling, Gaging & Measuring Equipment Control

All Shaw Development LLC supplied tooling becomes the responsibility of the supplier while in their possession. The equipment must be maintained in a reasonable condition and subjected to an appropriate calibration process where applicable. The Supplier shall maintain all tooling and fixtures to the latest engineering revision at all times.

The supplier shall notify Shaw Development LLC in the event of any calibration failures that may affect any products previously supplied. Products affected shall be identified by serial number or batch reference.

All tooling, drawings, data and documentation owned by Shaw Development LLC shall remain the property of Shaw Development LLC and shall be clearly marked that they are the property of Shaw Development LLC.

Shaw Development LLC reserves all rights of inspection or removal of all tooling and fixtures at any time, at no cost to Shaw Development LLC (except for freight charges).

All Shaw Development LLC supplied tooling must be returned when requested by Shaw Development LLC.

6. Identification, Handling, Labeling, Cleaning, Preservation, Packaging and Packing

The Supplier shall accomplish identification, handling, labeling, cleaning, preservation, packaging, and packing in accordance with the applicable drawings, specifications and instructions as referenced on the purchase order.

7. Original Manufacturer's Material Certificate:

Compliance results of physical &/or mechanical specifications of materials are documented on the original Manufacturer's Material Certificate, as directed by a design record. Certificate documents are provided to Shaw Development LLC on all 1st Article shipments.

Supplier must retain original Manufacturer's Material Certificate information for all other products shipped. This certificate must be available upon request within 2 business days. This requirement applies to all industry recognized specification such as, but not limited to:

- ASME
- ASTM
- JIS
- MIL
- SAE

If a Certificate of Conformance (C of C) is required for shipments to Shaw Development LLC, it must contain the following:

- Part Number
- PO Number
- Quantity
- Date
- Raw material or coating specified on the drawing
- Actual raw material or coating used
- Any special processes or specifications called out on the drawing

A packing slip with standard C of C included is acceptable. The supplier must retain all material and process certifications and must be able to provide them within 2 business days upon request. This applies to all non-catalog items.

8. Source Inspection:

At the discretion of Shaw Development LLC, the items covered by the purchase order are subject to Shaw Development LLC Source Inspection and/or tests prior to shipment from Supplier's plant.

9. Product Quality Assurance

Shaw Development LLC expects its Suppliers to be aggressive with continuous improvement efforts to their processes in order to achieve zero defects. This plan must include education and training in problem solving techniques, employee involvement, and cost of quality, with implementation target dates, assigned

responsibility and regularly scheduled Quality Management Reviews. Process capabilities and special characteristics must be demonstrated to ensure that the initial process capability Ppk is >1.33 unless otherwise specified on the Purchase Order.

The Supplier shall prepare documented process monitoring and operator instructions for all employees having responsibilities for the operation of a process in order to maintain a production Cpk of >1.33 for all critical characteristics. For any characteristic that does not meet the above criteria, a corrective action plan must be submitted for approval.

Items not meeting the capability criteria will be on a containment plan until a Cpk of >1.33 is demonstrated. The Supplier shall comply with all specifications required by the drawing and engineering specifications. These requirements cover the MINIMUM inspection necessary to assure compliance with established requirements.

All functional characteristics shall be inspected by the Supplier using one (1) or more of the following:

- Sampling plan
- One hundred percent (100%) inspection (Prefer to have Poka-Yoke), for all critical and key features with process Cpk of <1.33.
- Implementation of a Statistical Process Control program.

Sampling procedures, inspection records, examinations, and/or test reports must be complete and available to Shaw Development LLC Quality department as required. The Supplier is responsible to conduct inspections and tests at a frequency in accordance with applicable test methods or procedures, drawing requirements, and engineering specifications.

Unless otherwise specified, the Supplier may utilize its facilities, or those of any certified laboratory to conduct such tests. Unless otherwise specified, the Supplier shall provide and maintain gages and other measuring and testing equipment considered necessary for conformance to the applicable tolerances. The inspection gages, devices, etc. shall be calibrated periodically in accordance with suitable calibrating equipment. Shaw Development LLC reserves the right to conduct inspections by its staff or third party agent's systems, as well as conduct follow up audits, at the Supplier's facility, at no increase in cost or delays to Shaw Development LLC. Access to the Supplier's facility or facilities shall be granted to Shaw Development LLC representatives to investigate production facilities and any information pertinent to the Supplier's end product sold to Shaw Development LLC. Reasonable notification shall be given prior to an audit being conducted. An inventory management system shall be established to continuously optimize inventory turns, stock rotation (FIFO) and minimize inventory levels. The Supplier will maintain such inventory levels as required to buffer any quality, capacity or delivery concerns that may reasonably arise. Revision or drawing changes pertinent to materials, parts, and assemblies currently in production must reflect the change at the established effective date of incorporation.

Shaw Development LLC reserves the right to recover costs associated with a supplier failing to meet a drawing requirement or specification. This includes, but is not limited to:

- Sorting of non-conforming material by Shaw personnel or a third party
- Rework of non-conforming components or assemblies that is a direct result of the non-conforming condition
- Expedited freight costs
- Customer charges incurred as a direct results of the non-conforming condition

- Outside testing if needed to determine the source of the non-conformance
- Lost production time

10. Sub Supplier Control

Shaw Development LLC Suppliers are required to control and develop their supply base. Sub Suppliers that provide products with key characteristics must implement appropriate control methods for their process. The Supplier must review sub Supplier controls and continuous improvement efforts on a periodic basis to ensure conformance to drawing specifications, and Quality System performance. If you should require assistance in the control of sub Suppliers, a Shaw Development LLC Purchasing representative should be contacted. Note: Any change of a sub supplier to a PPAP approved part must be communicated to Shaw Development LLC per section 4.2.

11. Supplier Scorecard

Performance of the "A" level (80% of the Shaw spend) suppliers will be measured and results published on a quarterly basis at a minimum. Each of those suppliers will be rated in the following metrics. Each metric will be individually scored as described below and tallied to an overall supplier score from 0 to 50 points:

Quality: The Quality Rating is calculated from a rolling 3 month PPM. Suppliers will receive a score from 0 to 20 points based on PPM, PPAP submissions, FAIR submissions, and SCAR responses. PPM scoring goals will be established annually by Shaw Development LLC and reported to the supply chain.

On-Time Delivery: The On-Time Delivery Rating is calculated from a 3 month rolling average of the PO units delivered and the PO units scheduled for delivery. Suppliers will receive a score from 0 to 20 points based on performance. On-Time is defined as PO Scheduled Delivery Date. The On-Time Rating is calculated as $(\text{Total Deliveries}) - (\text{Total early} + \text{total late}) / (\text{Total Deliveries})$.

- On time delivery is no more than 2 days early, and no more than 1 day after the scheduled due date.

Purchasing – 10 points max. The supplier will be given a score from 0 to 2.5 points in each of the following categories:

- Total cost performance
- Cost reduction effort
- Engineering support
- Cooperation, service, and support

Suppliers will then receive an overall score and be rated as follows:

Supplier Ratings	
Preferred	40.0 – 50.0
Qualified	30.0 – 39.9
Probation	0.0 – 29.9

Suppliers who are rated as probation for more than 3 consecutive months will be expected to develop a supplier improvement plan. Suppliers who fail to improve may be looked at for de-sourcing activities and will be placed on new business hold.

Suppliers may also be considered for the Shaw Development Certified Supplier Program based on meeting the following requirements.

Category	Requirement for Certification
Supplier Rating	Preferred Status for at least 3 consecutive months
Supplier Quality Performance	No supplier related incoming inspection returns in the past 12 months
Delivery Rating	> 98.5% for the previous 12 months
Certification	ISO 9001 / TS 16949 / or equivalent registration and a Shaw Supplier Qualification Survey (F-SCM-053) on file for all non-COTS part suppliers
Length of Service	> 12 months as an approved supplier to Shaw
Meets target lead times	< 10 days for repeat orders

Certification will be done according to our program guidelines.

12. Conflict Minerals (Dodd-Frank Act - Section 1502)

The definition of “conflict minerals” refers to gold, tin, tantalum, and tungsten, the derivatives of cassiterite, columbite-tantalite, and wolframite, regardless of where they are sourced, processed or sold. The U.S. Secretary of State may designate other minerals in the future. We support these requirements to further the humanitarian goal of ending violent conflict in the Democratic Republic of the Congo (DRC) and in surrounding countries, which has been partially financed by the exploitation and trade of “conflict minerals”.

Shaw Development LLC will not knowingly procure specified metals that originate from facilities in the “Conflict Region” that are not certified as “conflict free”.

Shaw Development LLC asks that their suppliers undertake reasonable due diligence with their supply chains to assure that specified metals are being sourced only from mines and smelters outside the “Conflict Region” or mines and smelters which have been certified by an independent third party as “conflict free” if sourced within the “Conflict Region”.

If Shaw Development LLC discovers the use of these minerals produced in facilities that are considered to be “non-conflict free”, in any material, parts or components we procure, we will take appropriate actions to transition product to be “conflict free”.

13. RoHS / Reach

Shaw Development requires our suppliers to manufacture products that meet the EU directive. (Lead free, RoHS - Restriction of Hazardous Substances, WEEE - Waste Electrical and Electronic Equipment)

Supplier will be required to comply with Reach requirements as dictated by Shaw Development.

14. Documentation, Records, and Product Sample Retention

Suppliers must have a method of allowing for the safe and accessible storage of all records including procedures, documentation, data and samples pertinent to Shaw Development LLC products and processes. At a minimum, Shaw Development, LLC requires the following:

- **Certificates** - Seller agrees to provide Free Trade Agreement (FTA) or similar; Buy America; Conflict Mineral; International Material Data Sheets (IMDS); Registration, Evaluation and Authorization of Chemicals (REACH); and Restriction on Hazardous Substances (ROHS) as required by purchaser.

Purchaser will request certificates from seller on an as needed basis. If status of a certificate changes at any time, seller will issue a new certificate immediately.

All such supporting information and documentation shall be retained by seller for a minimum of five (5) years and be subject to audit by purchaser upon reasonable notice. Seller shall include the substance of this section in all subcontracts awarded by seller for work under any purchase orders.

- **Production part approvals, tooling records, Purchase Orders, and amendments** – records shall be maintained for the length of time that the part (or family of parts) is active for production and service requirements plus one calendar year.

- **Quality** - performance records (e.g. control charts, inspection and test results) shall be retained for one calendar year after they were created.

Note: These requirements do not supersede any regulatory requirements.

If a supplier stops production to Shaw Development LLC, upon conclusion of the business relationship, that supplier will forward the above mentioned documentation to Shaw Development LLC, otherwise the supplier remains responsible for the maintenance of above mentioned documentation for the stated period of time.

15. Order of Precedence

The contents of this SQRM are in addition to and an elaboration of the terms and conditions contained in the Shaw Development LLC purchase order and other binding legal agreements entered into between the parties relating to the supplier relationship (Supplier Contract(s)). To the extent that a conflict or ambiguity may arise between the terms and conditions of the Supplier Contract(s) and the contents of this SQRM the order of precedence shall be:

A) The Supplier Contract(s) and;

B) The SQRM.

The provisions of this SQRM are for the exclusive benefit of Shaw Development LLC and may be varied or modified by Shaw Development LLC, in its absolute discretion, without prior notice to any third party. This SQRM is a controlled document and the property of Shaw Development LLC. It is intended exclusively for use by Shaw Development LLC suppliers and shall be used for no other purpose or by any other party. It shall not be reproduced, electronically or otherwise, without Shaw Development LLC express prior written authority.

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Appendix A: PPAP Requirement Matrix

(Note: Table 4.2 in the AIAG PPAP Manual lists submission and retention requirements. Mandatory and applicable requirements for a PPAP record are defined in the PPAP manual)

All AIAG manuals can be purchased at: <https://www.aiag.org/source/Orders/index.cfm>

Item	Requirement	Level 1	Level 2	Level 3	Level 4	Level 5
1	Design Record (Bubbled Drawing corresponding to lay out details)	R	S	S	*	R
2	Engineering Change Document if any, if none, a memo stating as such	R	R	R	*	R
3	Shaw Engineering Approval if required, if none, a memo stating as such	R	S	S	*	R
4	Design FMEA, (if none exists with supplier a memo stating as such)	R	S	S	*	R
5	Process Flow Diagram (AIAG format)	R	R	S	*	R
6	Process FMEA (AIAG format)	R	R	S	*	R
7	Control Plan (AIAG format)	R	R	S	*	R
8	Measurement System Analysis Studies (AIAG format)	R	R	S	*	R
9	Dimensional Report (FAIR from 1 random sample per cavity)	R	S	S	*	R
10	Material Performance Test Results (this includes finish and outside processing such as heat treat, painting, plating, passivation, etc.)	R	S	S	*	R
11	Initial Process Capability Studies (from 30 piece random sample)	R	R	S	*	R
12	Qualified Laboratory Documentation (ISO 17025 cert.) or Lab Scope (description of gages, calibration, Work Instructions etc....)	R	S	S	*	R
13	AIAG Appearance Approval Report, (if no appearance items exists, a memo stating as such)	R	S	S	*	R
14	Sample Product from Sample(s) (labeled with PPAP placard) Memo stating the day of shipment AND tracking information ***this also includes capability samples	R	S	S	*	R
15	Master Sample, (send memo stating Master Sample is retained at supplier)	R	R	R	*	R
16	Checking Aids, (Checking Aids and their validation process are to be described in memo and submitted in PPAP), if none, a memo stating as such	R	R	R	*	R
17	Records of Compliance (copy of ISO or TS certification, if not ISO or TS certified a copy of the approved Shaw Supplier Survey.	R	S	S	S	R
18	Part Submission Warrant (PSW)	S	S	S	S	R

S = Supplier shall submit to the customer and retain a copy of the records or documentation items at appropriate locations.

R = Supplier shall retain at appropriate locations and make available to the customer upon request.

* = Supplier shall retain at appropriate locations and submit to the customer upon request.

FAIR/PPAP Sample

The FAIR or PPAP layout samples are to be labeled corresponding to lay out details and sent to Shaw Development LLC. Hard copies of the FAIR or PPAP documentation must be organized in the order listed in the above PPAP Requirement Matrix and sent with samples. An electronic file of FAIR or PPAP documentation is to be e-mailed to the Shaw Development Purchasing contact when samples are shipped. See appendix B for PPAP Placard (THIS PLACARD MUST BE ATTACHED TO SHIPPING BOX).

PPAP Approval Requirement

Shaw Development will need to approve the PPAP package prior to first production shipment unless prior authorization has been given by a designated Shaw Development representative. Any parts produced in excess of the PPAP sample run will be the responsibility of the supplier unless prior approval from Shaw development has been given.

Appendix B: PPAP Placard

CUT OUT AND ATTACH TO THE TOP OF THE SHIPPING CARTON

Please complete and attach this page on the outside of each package in plain view of a fork lift/material handler/operator. Put the Packing slip pocket near the label.

In the event parts are "Loose" shipped, a label should be placed on each part. This would also apply to parts laying on pallets. Label on a painted part must be wire tied or attached in a way such that the painted surface is protected from label adhesion.

FAIR / PPAP

SAMPLE PARTS

INSPECTION VERIFICATION REQUIRED

Purchased Order#:

Part Number:

Revision Level:

Supplier Name:

Supplier Number:

Supplier Inspected By:
