PROTERIAL

Proterial Cable America
HC Queretaro, S.A. de C.V

Supplier Quality Assurance Manual (SQAM)

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1.0 ABOUT THIS MANUAL

1.1 Purpose

The purpose of this manual is to provide a standardized form of communication between Proterial and Proterial's suppliers in regard to the quality requirements of Proterial.

1.2 Scope

This manual covers Supplier Development, Part/Process Qualifications, and Ongoing Production Requirements. This manual defines quality expectations, documentation requirements, procedures, and practices required by suppliers. By entering in a supplier contract with Proterial, the supplier agrees to abide by the conditions of this manual. This manual may be updated as needed, and revisions will be made available on the Proterial website. Each supplier is responsible for monitoring the website for updates at the following address:

http://www.hca.Proterial-cable.com/products/vehicle/download/downloads.php

Note: All forms must be submitted in English

2.0 Proterial -QUALITY STATEMENT AND PHILOSOPHY

2.1 Proterial – QUALITY STATEMENT

***"Total Customer Satisfaction"** achieved through developing our people and business partners to meet all customer requirements utilizing our Proterial Values and our commitment to continual improvement and to the achievement of our Business Plan.

2.2 Proterial – CORPORATE PHILOSOPHY

Consistent Pursuit of Zero Defects.

a. Strict observance of operating standards and work instruction
b. Capability to identify irregular items
c. Completeness of irreversible corrective action taken on irregular items
d. Employees' engagement with management's total quality commitment.

Maintaining Proven Past Reliability Reputation Through,

a. Diversification of automation process
b. Establishing a preventative maintenance system
c. Constant improvement of mistake proof quality systems
d. On-going training of employees in the operation and maintenance of new technology and machinery

Continuous Quality Improvement from Sub-suppliers through,

a. Technology support from engineering
b. In-plant surveys and constructive documentation from quality assurance
c. Development of long-term relationship to support commitments

Improvement of our peoples' abilities

a. Support of true and total harmony in the company through employees participating with each other, learning and teaching in a beneficial way
b. Continue training and involvement in the problem resolution process

3.0 SUPPLIER DEVELOPMENT

3.1 Designation of Supplier Representative(s) to Proterial

The supplier shall appoint a primary person and an alternate person from each manufacturing facility, who has the responsibility and authority to identify and resolve quality issues. This information shall be documented on Proterial form, HF-PR-09, entitled, "Supplier Contact Information Sheet." This form shall be submitted annually.

3.2 Supplier Questionnaire

All potential suppliers must complete the New Supplier Data Sheet (HF-PR-32), Confidentiality Agreement, Proterial Environmental Management System and Contractor's Responsibilities (HF-EM-06) and Supplier System Survey (HF-Q-068).

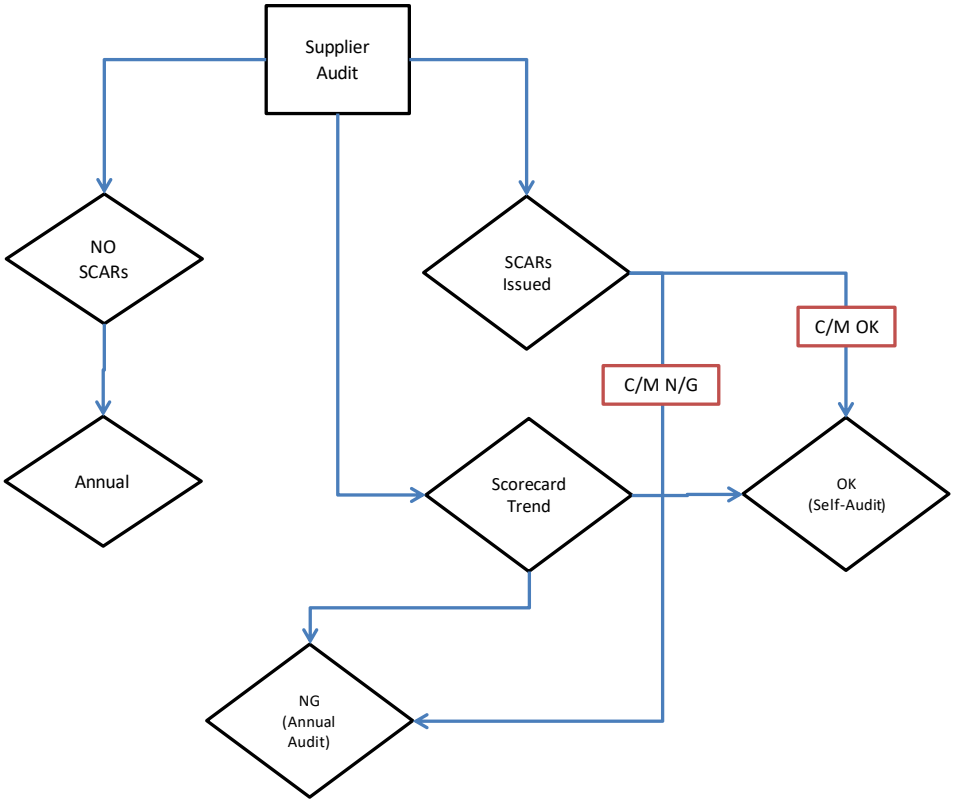
3.3 Supplier System Survey

The Supplier System Survey (HF-Q-068) is mandatory for all suppliers.

3.4 Supplier Assessments – Existing and New/Prospective Suppliers

Proterial reserves the right to conduct quality system audits of its existing suppliers and its new/prospective suppliers. The need to conduct an on-site audit shall be determined by Proterial personnel. Factors to be considered when determining the need for on-site audit include: criticality of the supplied part; difficulty of manufacturing the part: the overall strength of the supplier's quality system documentation; the supplier's previous experience in manufacturing the part; and the supplier's quality history in manufacturing similar parts. This may include CQI assessments and onsite audits as applicable (see section 6.8)
Supplier audits will be scheduled in advance so as not to create any major business interruptions for either Proterial or its supplier.

Criteria for Supplier Audit: Reference Flow Chart



3.5 Supplier Quality System Certification*

It is the goal of Proterial's supplier development program that each supplier is in conformity with the current version of IATF16949. Suppliers shall be registered to a minimum of ISO 9001 by an accredited third-party certification body unless otherwise specified by Proterial's customer(s), or under special circumstances approved by Proterial. Supplier should have the ultimate objective of becoming certified to IATF 16949. Unless specified by Proterial's customer, the following sequence should be applied to achieve this requirement (IATF 16949 8.4.2.3)

- Certification to ISO 9001 through third- party audits
- Certification to ISO 9001 with compliance to other customer-defined QMS requirements
- Certification to ISO 9001 with compliance to Minimum Automotive Management System Requirements for Sub-Tier Suppliers through second-party audits

- Certification to IATF 16949 through third-party audits (valid third-party certification by an IATF-recognized certification body)

Suppliers shall provide Proterial with a copy of their current certificate(s).

Supplier shall notify Proterial of any changes to their current ISO or IATF status including suspension.

In the case of Laboratory Services for material/performance testing, suppliers should be certified to ISO/IEC 17025 or a national equivalent.

Proterial maintains an Approved Supplier List and any supplier that loses its certification to either of these may result in the supplier be resourced and / or placed on new business hold until:

1. Completing a re-certification audit and providing Proterial with the new certification.
2. Provide a written plan of action for obtaining and sustaining ISO9001 or IATF 16949 certification.

3.6 Verification of Purchased Product

Proterial reserves the right for its staff and/or customer(s) to visit the supplier's premises to review the operation and to ensure the product purchased conforms to specified requirements. This includes Run at Rate and/or Capacity Studies. Reasonable advanced notice shall be given by Proterial prior to such a visit.

Proterial conducts incoming inspections on PPAP submissions and production shipments of purchased product. The sampling plans for said inspections are commensurate with the history of the quality of the purchased product. It is the goal of Proterial to NOT inspect incoming product and have the Supplier to totally accept responsibility for the quality of the purchased product supplied.

4.0 PRODUCTION PART APPROVAL PROCESS (PPAP)

Note: Proterial is an automotive supplier. As such, Proterial must adhere to the requirements of Production Part Approval Process (PPAP) latest Edition as published by the Automotive Industries Action Group (AIAG). These basic requirements must be deployed to Proterial's Supplier base.

4.1 Definition

Production parts are manufactured at the production site using the production tooling, gauging, process, materials, operators, environment, and process settings, e.g., feeds/speeds/cycle times/pressures/temperatures.

Parts for production approval must be taken from a significant production run. This run would typically be from four hour to one shift's production, to the AIAG Standard unless some other quantity has been agreed upon in writing by Proterial.

REQUIREMENT	LEVELS				
	1	2	3	4	5
Design Records of Saleable Product -for proprietary components/details - for all other components/details	R R R	S R S	S R S		R R R
Engineering Change Documents, if any	R	S	S		R
Customer Engineering approval, if required	R	R	S		R
Design FMEA	R	R	S		R
Process Flow Diagrams	R	R	S		R
Process FMEA	R	R	S		R
Control Plan	R	R	S		R
Measurement System Analysis Studies	R	R	S		R
Dimensional Results	R	S	S		R
Material, Performance Test Results	R	S	S		R
Initial Process Study	R	R	S		R
Qualified Laboratory Documentation	R	S	S		R
Appearance Approval Report, if applicable	S	S	S		R
Sample Product	R	S	S		R
Master Sample	R	R	R		R
Checking Aids	R	R	R		R
Records of Compliance With Customer-Specific Requirements	R	R	S		R
Part Submission Warrant (PSW) with IMDS information included. (See Note 2)	S	S	S	S	R

S = Submit to HCAM, **R** = Retain at suppliers location,
= Retain and submit upon customer request

NOTE 1: Forms for the above are provided in the "Forms" section of this manual.

NOTE 2: Materials Reporting: Substances of Concern: Enter "Yes." "No," or "n/a." IMDS/Other Customer Format: Circle either "IMDS" or "Other Customer Format" as appropriate. If submitted via IMDS include: Module ID#, Version #, and Creation Date. If submitted via other customer format, enter the date customer confirmation was received. Polymeric Parts Identification: Enter "Yes," "No," or "n/a." (Reference AIAG PPAP Manual 4th Edition, Appendix A.)

NOTE 3: For a description of the specific requirements listed on this table, see AIAG PPAP Manual.

NOTE 4: Proterial Forms may include Packaging Approval Form (HF-PR-04), Environment HF-EM-06, Proterial Tooling Form (HF-PR-03)

4.2 Scope

The purpose of production part approval is to determine if all Proterial customer engineering design records and specification requirements are properly understood by the supplier and that the process has the potential to produce product meeting these requirements during an actual production run at the quoted production rate.

4.3 When is a PPAP Submission Required?

- A new part or product.
- Product modified by an engineering change to design specifications, or materials.
- Material has changed from what was previously used.
- Production from new or modified tooling.
- Change in the production process.
- Tooling or equipment is transferred to a new location
- Tooling or equipment that has been idle for more than 12 months must be re-ppap.
- A new subcontractor is used for parts, materials or services
- Following a Proterial request to suspend shipment due to a supplier quality problem.
- Change in test/inspection method – new technique.
- An annual PPAP must be available upon request.

4.4 PPAP Guidelines

1. Send six numbered parts from a PPAP piece run off production tooling (line/cavity).
2. Full layout completed for each of the six parts.
3. Data sheets must correspond with the six numbered parts
4. Drawings must be marked to reflect the numbering on the Data sheets
5. Process Capability studies are required for all "special characteristics" (Circle Delta icon or a customer specific icon) with measurements per the AIAG Standard or as directed by Proterial. Where no special characteristics have been identified, Proterial reserves the right to require demonstration of initial process capability on other characteristics.
6. *Safe launch is required for 30 production days with no defects*

4.5 Reporting of Part Material Composition

The supplier shall provide evidence that the Material/Substance composition reporting (IMDS and Conflict Minerals) that is required by HCA has been completed for the part and that the reported data complies with all customer specific requirements. Please reference the Proterial Cable Corporate Social Responsibility (CSR) - Environmental Guidelines Manual at:

http://www.hca.Proterial-cable.com/products/vehicle/download/downloads.php

NOTE 1: Materials Reporting: Substances of Concern: Enter "Yes." "No," or "n/a." IMDS/Other Customer Format: Circle either "IMDS" or "Other Customer Format" as appropriate. If submitted via IMDS include: Module ID#, Version #, and Creation Date. If submitted via other customer format, enter the date customer confirmation was received. Polymeric Parts Identification: Enter "Yes," "No," or "n/a." (Reference AIAG PPAP Manual, latest Edition)

NOTE 2: Proterial can assist in completing IMDS for those suppliers that are not capable or familiar with the IMDS system.

NOTE 3: For a description of the specific requirements, see AIAG PPAP Manual, latest Edition.

4.6 PPAP Submission Level

Proterial is responsible for determining which PPAP Level the supplier will submit. The level of PPAP is determined by factors such as; complexity of the part, supplier status, and prior supplier submission experience.

Unless notified otherwise, all suppliers shall submit to Level (3) PPAP submission per AIAG Standards.

4.7 Environmental Requirements

PCA and its corporate partners will together promote a harmonious and sustainable society through our products and services. Together, we will continually aim to reduce the environmental burdens produced throughout a product's lifecycle. Reducing environmental burdens can include energy savings, recycling, chemical substance control, or other sustainability effort.

Application

The following standard defines the criteria for conforming to specifically controlled substance guidelines that are either excluded or limited in supplier's products. It also determines the quantities of any other chemical substances considered environmentally harmful. This guideline was promulgated by Proterial Corporate as a world-wide environmental protection action initiative.

This guideline does not apply to non-shipped items, research and development parts and materials, or facility-owned items that help manufacture a product (i.e. – fixtures). Also, it is non-applicable if a Proterial customer or Proterial-engineered specification requires that substance and violates no law or regulation.

Purchase of Approved Items

The Purchasing Department shall purchase only items that meet the criteria established for level-one chemical substances.(See p.28-Table A.)

Environmental Purchasing Certification System

All new suppliers shall complete and sign Proterial's Supplier Responsibilities (HF-EM-06) form. Upon receipt of this document, the EMR shall review the supplier environmental survey and assign a risk rating (per WI-QS-06). In the event the supplier receives a critical environmental risk rating (E3), additional approval from the Procurement Manager and Vice President of Operations shall be required prior to utilizing the supplier. This document will be collected during PPAP.

The IMDS Coordinator shall ensure that all required chemical substance information has been entered into the IMDS website. Such confirmation shall include documentation that product ingredients do not present an

environmental issue. The IMDS system captures and tracks rejected and accepted submissions. All IMDS rejected submissions will be tracked to acceptance by the IMDS Coordinator.

In the event that the supplier is not conforming to the standards for controlling chemical substances included in products, the site may deny or cancel the supplier's environmental certification described in the preceding paragraph.

***Renewal of Environmental Supplier Certification**

The Purchasing Department shall keep a record of the supplier's ISO 14001 certification and the expiration date. It is the supplier's responsibility to update HCA when there is a change in their ISO 14001 certification. The Purchasing Department will contact the supplier within a reasonable time following the expiration of their ISO 14001 certificate to obtain an updated document.

4.8 Data on Substance Ingredients

Obtaining the Warranty of the Control of Chemical Substances

The Purchasing Department must obtain from suppliers the chemical substance information through the IMDS website to certify that the material purchased contains amounts of level-one chemical substances as defined in the standards for controlling chemical substances included in products no greater than the base values defined in those standards.

When a group has decided to seek certification at levels stricter than the base values defined in the Standards for Controlling Chemical Substances Included in Products (Japan Green Procurement Survey Standardization Initiative), it must first take into sufficient consideration matters such as the reason for applying stricter standards and the reasonableness, significance, feasibility, and required additional costs for the levels at which certification is required, and it must adequately explain such matters to the suppliers.

*Whenever the Purchasing Department adds subject to restrictions or changes base values in accordance with revisions to the standards for controlling chemical substances included in products, the IMDS website must be updated.

Receipt of submitted data on ingredients as described in the following paragraph and receipt of a certificate covering all transactions for the relevant purchased items may substitute for receipt of the certificate described previously.

Obtaining Data on Ingredients

In principle, in order to confirm the contents of the certification described in the preceding section, the Purchasing Department shall request that a supplier submit data on the ingredients of the purchased items. When data on ingredients is a supplier trade secret, it shall be handled as a proprietary ingredient, and the following precautions must be taken:

1. When the supplier refuses to submit the data because it is a trade secret, it shall not be forced to submit such data.
2. Data disclosed as trade secrets shall be administered as confidential information.
3. When restrictions on parties to which information may be disclosed have been provided for trade secrets, such restrictions shall be followed.

The data described in the preceding paragraph shall be obtained for level-two chemical substances, level-three chemical substances, and other important ingredients, in addition to level-one chemical substances as defined in the Standards for Controlling Chemical Substances Included in Products.

Actual measured values or guaranteed design values shall be used for data on ingredients.

Management of Change to Materials or Manufacturing Methods

For purchased items for which the Purchasing Department has received a submitted Warranty of the Control of Chemical Substances or the data on ingredients described, whenever the supplier makes changes to materials used, manufacturing methods, manufacturing locations, key production equipment, key manufacturing personnel, or other factors, the supplier shall be responsible for providing notice in advance concerning the content of such changes and their effects on the data on ingredients. When change notice has been received, the effects of such changes on data of ingredients must be confirmed in advance.

Specific changes to be administered shall be specified by each supplier in accordance with the characteristics of each item purchased. Proterial shall document these changes through the PPAP process.

4.9 Where to Submit the PPAP

Unless notified otherwise, submit all PPAP Documents to:

PPAP@HCAM-USA.com (electronic copy)

Unless notified otherwise, submit all PPAP Parts and 6 pc. layout data directly to the appropriate production facility:

Proterial (Indiana)
5300 Grant Line Rd.
New Albany, IN 47150

Proterial (Mexico)
Circuito el Marques Norte #76
Parque Industrial el Marques
C.P. 76240 El Marques,
Queretaro, Mexico

Attention: Quality Department

4.10 Proterial PPAP Approval

The supplier must receive Proterial's approval prior to shipping production products. After the sample parts are approved by Proterial, the supplier is responsible for ensuring that all future production meets Proterial requirements.

If Proterial rejects the supplier PPAP submission, the problem must be corrected and the PPAP resubmitted to Proterial for approval.

If the supplier denotes a deviation on the PPAP, Proterial may or may not accept the parts with a minor deviation. In either case, the supplier must correct the problem and resubmit the PPAP to Proterial for approval.

Note 1: Some customers may have specific documentation requirements for program development. For these situations, the suppliers will provide the necessary paperwork for customer compliance.

Note 2: If the supplier submits any exceptions to the PPAP, it must be approved by Plant Quality Manager (or Director) before shipment of production parts

Note 3: All tooling will require photographs and may require the installation of an Asset Identification permanently attached to the tooling. The Proterial Tooling Form, HF-PR-23 shall be completed.

4.11 Annual Layout

The supplier is responsible for doing an annual layout and keeping the records on file at their location. These records must be maintained and available to Proterial upon request in a timely manner.

Annual layout will include:

- 6 pc. layout
- Updated material certificates with qualified lab documents
- Any certificates or assessments that require annual updates

5.0 DELIVERY, PACKAGING AND SHIPPING REQUIREMENTS

5.1 Delivery, Receipt and Acceptance

A. Basic Concept

Proterial requires 100% on time delivery performance of suppliers. Proterial suppliers are responsible for the supply of defect-free material in accordance with Proterial's delivery instructions (delivery quantity, date and hour) and procedures. All materials shall comply with Proterial's specifications.

B. Packaging Data Sheet

A packaging data sheet (HF-PR-04) must be submitted to the buyer and approved by materials prior to shipping any product.

C. Receipt and Acceptance

1. Trailers are not to be dropped and drivers must remain in the trucks while waiting for a dock.
2. Proterial will unload parts from trailers parked in the dock. Truck Drivers are responsible for verifying the container count as their trailers are being unloaded.
3. The purpose of "receipt and acceptance" is to check parts delivered against the supplier release list. The acceptance receipt is made immediately after unloading. Any discrepancies regarding container count, damage (obvious), etc. will be reported to the driver in writing (Including Pictures) prior to his leaving the dock.

D. Packing List

1. The packing list shall be signed by the supplier and carrier before shipment. Upon arrival at Proterial, Proterial will verify contents and countersign the packing list. All shortages of containers and damages will be documented on the packing list. Proterial will keep the office copy of the packing list and

distribute the others per supplier and carrier request. The pack list must include the correct PO number and price to avoid payment delays.

E. Difficulties with Delivery

1. Proterial will issue a Supplier Corrective Action Report or SCAR for parts found unacceptable. The materials and quality departments will resolve problems with quantity and quality respectively. Failure to provide product to schedule is a serious non-conformance. If the supplier cannot meet Proterial's schedule, it is their responsibility to contact their assigned material scheduler to advise them of the problem and work with Proterial to minimize it. It is the supplier's RESPONSIBILITY to notify Proterial of any pending shortage PRIOR to the due date, not on the date due.

2. **Parts found unacceptable on delivery will be treated as follows:**
   a. When the material is deemed to be "non-conforming", the supplier assumes the responsibility of delivering replacement parts. Proterial will return rejected parts to the supplier. Supplier is responsible for all costs associated with defective material.
   b. Non-conforming material (as designated by the Proterial's Supplier Quality Assurance Department) will be held in the Process Control holding area no longer than 5 working days after notification of the supplier.
   c. If the supplier does not respond to the Proterial Quality Assurance Department's request for action within 5 day time limit, the material will be scrapped at Proterial or returned to the supplier, both options at the supplier's expense.
   d. The supplier will be held accountable and charged for any excess labor / material accumulated by a Proterial department because of supplier defective or non-conforming material at Proterial or Proterial's customer(s).
   e. The supplier is also responsible for supplementing delinquent parts or shortages as determined by Proterial.
   f. Over-shipments may be returned at supplier cost. Proterial will make the decision to return or accept material and notify supplier.
   g. Proterial must approve all packaging in accordance with the packaging and shipping section.

5.2 Packaging and Shipping*

The following information deals with packaging and shipping requirements to be observed when delivering material to Proterial. All suppliers should review and conform to these requirements.

A. Manually - lifted containers

1. Gross weight of parts and container cannot exceed 30 pounds.
2. Maximum dimensions of the individual container should not exceed 24 inches (600mm) in length x 24 inches (600mm) in width x 12.0 (305mm) inches height, unless part size dictates a larger container.

B. Mechanically - Transported Containers

1. Gross weight of parts and containers should not exceed 2,000 pounds.
2. All mechanically transported packages must have four-way fork entry capability. Pallets must be 48 x 45 with adequate boards to insure that the individual boxes will not fall through.
3. For internal storage purposes, all packages must permit five- level stacking capability.

C. Dunnage

Note

All corrugated boxes used to ship purchased product to Proterial, must be shipped in certified containers that have been tested to meet the shipping needs for such weights and items being transported. (See example of such certifications to the left)

1. Partitions and nesting of parts should be used in providing internal part protection.
2. Wrapping of parts and the use of loose Styrofoam dunnage is not allowed.
3. Packaging of parts should not necessitate special handling procedures within Proterial.
4. Corrosion prevention should be considered when establishing packaging specifications.
5. When multiple single wall corrugated card board boxes are used to ship production on a pallet, corner supports must be used with shrink wrap to secure the shipment in such a way as to prevent shifting on the pallet or from being crushed.

6. Small and heavy parts (i.e. steel fittings) needs to be packed in a quality double wall corrugated carton if cardboard is to be used.
7. When shipping on a pallet that should not be double stacked, the pallet must be clearly marked with no stack cones or appropriate identification visible to the driver.
8. When using cardboard boxes, the box size or packaging should not allow space between the contents and the box lid. This is to reduce the negative effect if the box collapses when stacked in multiple layers on a pallet.
9. All hazardous materials shall be labeled and shipped in accordance with the latest provisions of Title 49, Code of Federal Regulations.
10. Required maintenance and repair of supplier owned containers, under normal use and handling is the responsibility of the supplier.
11. Proterial approval of submitted packaging does not relieve the supplier of responsibility as shipper for meeting carrier regulations and providing adequate protection for the contents of the packaging.

D. Receiving

1. With the exception of coil material, no provisions are available to receive L-Boy and Flatbed trailers. If required, prior approval from Proterial Procurement personnel must be obtained

2. Container marking should be:
   a. Of a contrasting color so as to be readily visible (i.e., black on white).
   b. Applied with permanent ink, paint or decal that is compatible with the substrate being marked.
   c. Markings shall be sized as follows:

      1. A minimum of 1-1/2 high characters on hand handled totes boxes, trays, etc., when the configuration of the container will permit.
      2. A minimum of 4" high characters on mechanically handled pallets, boxes, racks, etc., when configuration will permit.

E. All supplier packaging designs are subject to approval by Proterial.

1. This is to include type and size of box, the bar code identification label and the number of pieces per box. Any changes in the above mentioned items must have approval from Proterial.
2. No incomplete boxes are to be shipped. Each box shall contain the agreed upon number of pieces per box.
3. If master labels are used, they should not be affixed to any individual container. Master labels should be affixed to pallets on the outside of shrink wrap

F. Lot and Traceability.*

1. Supplier must define lot by day and shift (at minimum)
2. Traceability must meet IATF 8.5.2.1

G. Special ID Tags.

1. All non-mass production parts (ex. Prototypes, PPAP samples) must be identified on the outside of each box via a "Special ID Tag".
2. "Special ID Tag" will need to follow the format below including color (Orange):

Special Shipment Identification Tag

Hitachi Cable Automotive Products USA, Inc.

Sample Submission
(Circle One)
Prototype
PPAP
First Mass Production Shipment

Engineering/ Revision Change
(Circle One)
New Part Indicator
Other _____

Location of Data Package
(Circle One)
Enclosed
Other _____

HCAM P.O. Number _____
HCAM Part Number _____
HCAM Drawing Number _____
HCAM Drawing Level/Date _____
Quantity Shipped _____
Ship Date _____

Supplier Name _____
QC Manager/ Designate _____
Supplier Location _____

PROTERIAL CABLE AUTOMOTIVE PRODUCTS USA BAR CODE LABEL SPECIFICATIONS

Field Title	Character Size	Max No. Of Characters
Part Number	**13**	**14**
Quantity	**13**	**7**
Lot Number	**5**	**13**
Supplier	**5**	**8**
Part Name	**5**	**8**
P/O Number	**5**	**13**

(1) All bar code shall conform the "bar code standard for 3 of 9 bar codes."
(2) All field titles shall be 1.5 mm in height.
(3) Bar codes shall be included for part no., quantity, supplier, lot number and P.O. number. All bar codes shall be 13 mm in height.
(4) The bottom right hand rectangle may be used for supplier serial number if desired. It is not required by Proterial.

Part Identification Label (s)
Individual Box Label

FIELD IDENTIFICATION:

PART NO:	Human readable characters plus 3 of 9 bar coding with hidden prefix **"P"** in the barcode itself.
QUANTITY:	Human readable characters plus 3 of 9 bar reflects number of pieces with in a single box with hidden prefix **"Q"**.
SUPPLIER CODE:	Human readable characters plus 3 of 9 bar coding with a hidden prefix **"V"**.
LOT NO:	Human readable characters plus 3 of 9 bar coding with a hidden prefix **"L"**.
PART NAME:	Human readable characters.
P.O. NO.:	Human readable characters plus 3 of 9 bar coding with a hidden prefix **"A**

6.0 ON-GOING PRODUCTION REQUIREMENTS

6.1 Supplier Corrective Actions Requests (SCAR)

A. Purpose

To notify the supplier of a quality/delivery problem that exists with their material, and to request a correction action from that supplier to correct the problem.

B. A SCAR Shall Be Initiated For the Following Reasons

1. Identification of a major product/process nonconformity in supplier material, or an accumulation of minor product/process nonconformity's of a similar type.
2. Observation of a noncompliance during a supplier audit conducted by Proterial.
3. Customer complaints concerning supplier material.
4. Delivery of supplier materials not according to schedule.
5. Incorrect or missing documentation for an order (Including labeling errors).
6. Shipping Production Parts prior to PPAP approval.
7. Poor performance and/or responsiveness.

C. Supplier Response to SCAR's

The supplier has 24 hours to respond to SCAR with an initial written response, unless notified otherwise. The initial response should contain at least the following information:

1. Containment data and initial containment plan
2. Sorting results at the supplier facility, number of parts sorted, and number of defects found.
3. Confirmation of potential or confirmed defective and /or suspect material in transit to Proterial.
4. Certified Product delivery timing with certified tags applied.
5. Temporary Corrective Action and Dates.

The supplier has 7 working days to respond with a root-cause analysis and then 10 working days for the final response, unless notified otherwise. This may be extended depending on the severity of the problem. Extensions must be approved by the Proterial Quality Manager. If an extension is granted, the supplier must provide updates on SCAR status, the frequency timing shall be determined by Proterial. The final response shall include the following:

1. Root cause and analysis including; how the defect occurred, why it was not detected, and why it was shipped to Proterial.
2. Countermeasure and Dates; containing details of the countermeasure activity and prevention from reoccurrence.
3. SCARs shall include the name of the preparer along with date completed.
4. The SCAR format will be determined by Proterial and normally transmitted via e-mail. Proterial will require the response in either the normal Proterial SCAR format or an alternate specified by customer, both of which will be supplied along with the SCAR.

Note 1: A copy of the SCAR form is located in the Form section of this manual.
Note 2: A $150 dollar administrative fee will be charged for each SCAR unless it is successfully challenged in writing prior to the SCAR due date and accepted by the Proterial.
Note 3: Although the supplier normally has 24 hours to submit the initial written response, the supplier must IMMEDIATELY:

- Contain all suspect material in their facility.
- Determine and advise Proterial if any Lot Numbers already delivered or in transit may be suspect for this condition.
- Certify and identify material as “Certified” to be free of said defect in future or replacement shipments.

Note 4: Due to the severe impact that non-conforming material can have on Proterial and its customer(s), repeat occurrences must be avoided. Proterial will charge the supplier for all costs associated with the non-conformity both at Proterial and end customer. If a documented SCAR issue is repeated during a 6 month period, a re-occurrence charge can be applied as follows:

$750 - 1st Re-Occurrence during a 6 month period following the implementation and acceptance of the long term corrective action. Note: this is issue related not per specific part number.

$1500 -2nd Re-Occurrence during a 6 month period following the implementation and acceptance of the long term corrective action. Note: this is issue related not per specific part number.

$3000 - 3rd Re-Occurrence during a 6 month period following the implementation and acceptance of the long term corrective action. Note: this is issue related not per specific part number.

6.2 Process Capability

The supplier shall be able to demonstrate capability on all special characteristics per AIAG SPC core tool.
Acceptable product can be determined if the products are in control and capable of maintaining a Cpk > 1.67.

If a process is unable to maintain ongoing control on a special characteristic at a minimum Cpk of 1.67, the product must be 100% inspected.

Proterial will work with suppliers with special processes to develop specific strategy on capability.

6.3 Continuous Improvement

Proterial is committed toward continuous improvement. Continuous Improvement is vital to the survival of any company. Proterial strives to improve in all areas, and it is necessary for Proterial suppliers to have that same attitude.

In order for Proterial to continuously improve, our suppliers must also continuously improve. Proterial expects our suppliers to also maintain a Continuous Improvement Program of some kind. Proterial monitors its supplier's improvement through a monthly supplier rating; which includes: PPM defect analysis, SCAR analysis, and delivery analysis. Proterial expects improvements in these three areas on a yearly basis from its suppliers.

6.4 Supplier Rating

Proterial promotes the monitoring of the suppliers' performance for manufacturing processes by providing the suppliers with a quarterly rating. Proterial will issue supplier scorecards quarterly for deemed suppliers. The selection of suppliers will be based on the criticality of the part, supplier performance, and new launch activity. The quarterly ratings for the selected suppliers will be sent out at the end of each quarter showing their performance each month for the key indicators listed below.

A. QUALITY PERFORMANCE
Monthly PPM
Total SCARS at End of Month
Plant Satisfaction

B. DELIVERY PERFORMANCE
On time delivery each month.

6.5 Material Certifications and Qualified Laboratory Documents

Proterial requires material testing and performance testing certifications to be submitted with PPAP (see section 4.4). Once PPAP is approved, the supplier shall retain material certification documents from each shipment. These certifications shall be readily available and submitted to Proterial when requested.

The laboratories that certify material testing and performance testing shall prove that they are qualified to make said certifications. Acceptable proof of certifications is one of the following: IATF 16949 certification; ISO/IEC 17025 Certification or its equivalent; or a scope of the laboratories capabilities.

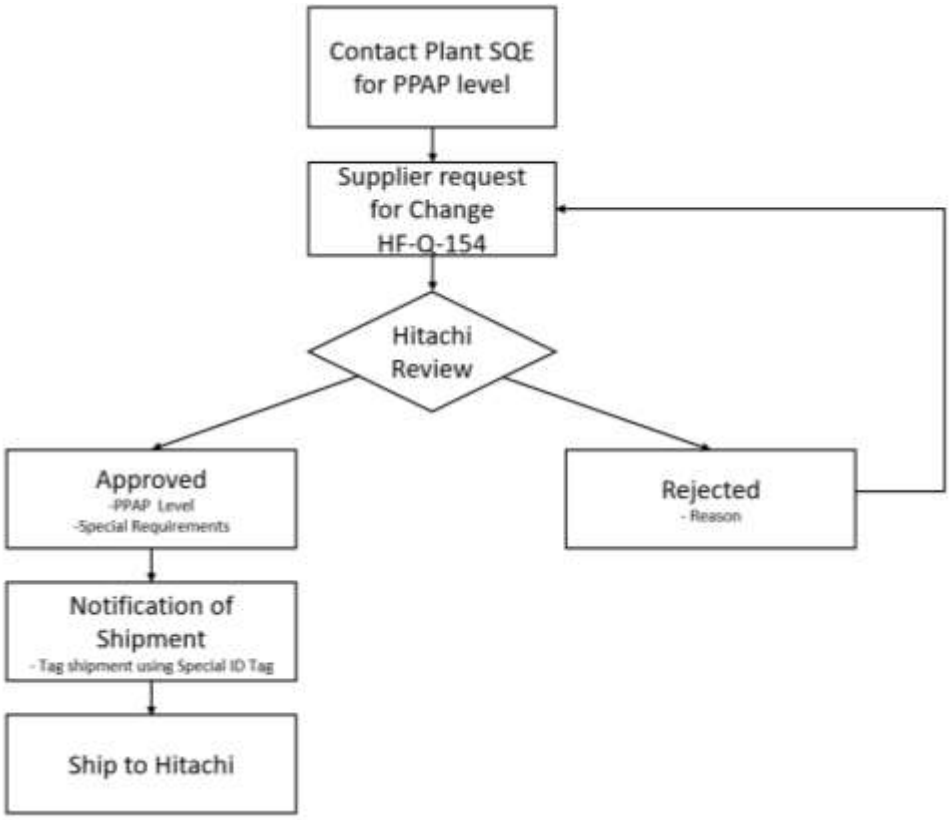
If the supplier is unable to provide these documents during PPAP then material will be sent to an accredited 3rd party lab for analysis and costs will be charged back to the supplier.

6.6 Change Notification*

The supplier shall notify Proterial of any planned changes to the design, process, or manufacturing site for products that have received PPAP approval. The supplier should notify Proterial using Form HF-Q-154 “Supplier Request for Change”. Proterial will complete the lower section of Form HF-Q-154 and return to the supplier as to whether the request is Rejected, Approved, or Approved with Conditions and any special requirements required by Proterial.

The supplier cannot implement the change without Proterial Approval.

For a list of potential changes that will require a new PPAP, see paragraph 4.3 entitled, “When is a PPAP Submission Required?” see below flowchart for process.



6.7 Material Sorting

Proterial tries to avoid sorting when possible, however some situations require us to have all material in the pipeline sorted, including that at the OEM customer. If there becomes a need for sorting the supplier will have one of three options.

1. Send supplier in-house personnel to conduct the sort of the non-conforming product. Timing and production needs must be considered.
2. Provide Proterial with certified replacement material so that suspect material can be returned to the supplier for sorting at their facility. This shall be subject to timing and production needs. Some sorting may need to take place until the certified material arrives.
3. Proterial will provide personnel to set up a sort for the non-conforming product and all costs shall be charged back to the supplier.

If Proterial is required to sort discrepant material, suppliers shall be charged a shop rate of $30.00 / hour to cover costs.

6.8 Annual Recertification / Special Processes

Proterial Cable maybe be mandated by our customers to assure that our suppliers follow any special processes identified by this AIAG. All suppliers must comply with these requirements by completing an assessment of their company and monitoring their sub-suppliers on these processes. CQI's and Conflict Minerals at minimum must be completed annual and supplied to Proterial Cable. It is the responsibility of the supplier to obtain a copy of the AIAG requirements and maintain the records necessary to ensure compliance. Assessment needs to be submitted annually and shall be required as part of the PPAP submission.

NOTE 1: Per our Customer Specific Requirements other documents maybe required annually or during the PPAP process

6.9 Tooling Maintenance and Identification

All tooling and equipment used in the manufacture of Proterial products must be maintained by the supplier in a condition that will assure that quality parts will be produced, and reasonable tooling life maintained. Any supplier using Proterial /Customer-owned tooling may be required to assure statistical capability of that tooling prior to acceptance for production.

All tooling owned by Proterial /Customer must be permanently identified as the property of Proterial /Customer with the proper tool number.

Tooling and check fixtures shall be updated to the latest drawing levels released by Proterial Purchasing Department. This must be documented and traceable. Obsolete tooling/fixtures cannot be scrapped without written authorization from Proterial Purchasing Department.

The supplier must have a maintenance program for production equipment and tooling. Preventative maintenance shall be planned, performed, and documented in accordance with formal guidelines. Traceable control records must be maintained. In addition, suppliers are expected to recover their maintenance cost in the product piece price.

If a tool is significantly damaged or "crashed", even though the supplier undertakes repairs, Proterial purchasing must be notified immediately.

Table A- Substance Categories

Category	Controlled substances	Regulated value
Level 1 (controlled substances)	Chemical substances prohibited by our company. Chemical substances which may potentially be used for our "Mono" (including packaging materials), though their use is prohibited or limited as per domestic or international laws or regulations. However, these standards do not apply under the following three conditions: 1) concentration of the substances is not beyond the legal limits; 2) the substances are exempt from legal requirements; 3) clients request to use the substances within a legally compliant range.	
Level 2 (substance of concern)	Controlled substances whose intentional use is not limited under laws, but whose actual status of usage should be monitored, or for which recycling or appropriate processing should be considered.	–
Level 3 (Substance required by customers	Substances prohibited or controlled by a business division as necessary depending on the customers' requirement. The final decision is left each division to its discretion.	–

Remark: If Level 1 and Level 2 substances are subjected to stricter allowable concentration control than required in laws and regulations upon request from a particular customer, then allowable concentration control shall be exercised that satisfies the customer requirements upon the discretion of the particular division.

TABLE B-Part Examination

Examination unit, unit classification, and threshold of examination values

	Units of survey	Unit of examination values	Classification of examination values	Threshold of examination values	
				Intentionally added	Unintentionally added
Level	Units of homogeneo materials (item 4.3)	In each specified (a) the mass of the denominator and numerator, or (b) the mass and concentration of denominator	Maximum value (theoretical or value)	To be regardless of values.	To be obtained if substances can included.
Level	Units of purchase or each dividing the items into arbitrary	The mass of the substances the units of the mass of the substances of hierarchical unit into arbitrary	Average or value (theoretical Actual value)		To be obtained if substances are identified and the Values are
Level	To be handled similarly to Levels I or 2 according to details.				To be handled similarly to and 2 according management details.

Table C-Composite Materials

	Composite Materials	Definitions of the denominator
1	Compounds, alloys, etc.	To be homogeneous materials
2	Paints, adhesives, ink, paste and other raw materials	The final materials ultimately formed in an assumed method shall be homogeneous material. (e.g. the post-drying and hardening status of paints and adhesives.
3	Single-or multi-layer structure of paint, printing, plating and other materials	Each single layer shall be homogeneous material. (When galvanization and chromate process is carried out, each of them shall be made of an individual homogeneous material.)