PPAP Checklist

XtraLight Z3 / XL1846180397Z / 23 May 2023 / Hannah Erlin

Complete

Score	79.87%	Flagged items	30	Actions	9

Manufacturer

JIT Manufacturing, Inc.

Address Fergus Falls, MN 56537, USA (46.2835212, -96.0777887)

Customer

Grandfame Motors Company

Address San Francisco, CA 94103, USA (37.7726402, -122.4099154)

Part Name & Number

XtraLight Z3 / XL1846180397Z

Quality Manager Hannah Erlin

Conducted on 23.05.2023 12:00 PST

Flagged items & Actions

30 flagged, 9 actions

Flagged items

30 flagged, 9 actions

PPAP Checklist / 1. Design Records

Is the form of dimension throughout the PPAP identical in all documentation?

No

Inconsistent drawings, one is for a headlight and the other is for a speaker.

Photo 1

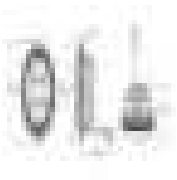

Photo 2

To Do | Assignee SafetyCulture Staff | Priority Low | Due 30.05.2023 12:19 PST | Created by SafetyCulture Staff

Attach correct drawing.

PPAP Checklist / 1. Design Records

Are tolerances compatible with accepted manufacturing standards?

No

Manufacturing tolerances below industry standard.

PPAP Checklist / 4. Design FMEA

Is a statement attached that DFMEA is available to be presented to the customer upon request?

No

To Do | Assignee SafetyCulture Staff | Priority Low | Due 30.05.2023 12:19 PST | Created by SafetyCulture Staff

Attach DFMEA statement.

PPAP Checklist / 4. Design FMEA

Does FMEA consider all major “lessons learned” (such as high warranty, campaigns, etc.) as input to failure mode identification?

No

Our lessons learned database is incomplete due to missing reports.

PPAP Checklist / 4. Design FMEA

Have the causes been described in terms of something that can be fixed or controlled?

No

PPAP Checklist / 4. Design FMEA

Does FMEA address all high-risk Failure Modes, as identified

No

by the FMEA team, with executable Action Plans?

To Do | Assignee SafetyCulture Staff | Priority Low | Due 30.05.2023 12:20 PST | Created by SafetyCulture Staff

Resolve high-risk failures.

PPAP Checklist / 4. Design FMEA

Have appropriate countermeasures been planned or taken for high-risk numbers? No

Not yet, no time.

PPAP Checklist / 5. Process Flow Diagram Assessment

Are inspection/quality assurance steps, data recording, attribute checks and/or functional testing included for each process step? No

PPAP Checklist / 5. Process Flow Diagram Assessment

Is the process flow chart controlled, updated and reviewed for completeness? No

Need to update.

To Do | Assignee SafetyCulture Staff | Priority Low | Due 30.05.2023 12:22 PST | Created by SafetyCulture Staff

Update process flow chart.

PPAP Checklist / 6. Process FMEA

Is a statement attached that PFMEA is available to be presented to the customer upon request? No

PPAP Checklist / 6. Process FMEA

Are adequate controls in place for all characteristics? No

PPAP Checklist / 6. Process FMEA

Are special controls/actions in place for all Special Characteristics? No

None for some special characteristics.

PPAP Checklist / 6. Process FMEA

Is Process FMEA integrated and consistent with the Process Flow Diagram, Process Control Plan and other PPAP documents? No

PPAP Checklist / 6. Process FMEA

Are the top RPNs addressed with recommended actions and the actions are implemented?	No

PPAP Checklist / 6. Process FMEA

Is there evidence that the failure modes with action are carried over to the Process Control Plan?	No

PPAP Checklist / 7. Control Plan

Are Special Characteristics and other major, significant, features of special interest, etc. process variables identified?	No

PPAP Checklist / 7. Control Plan

Is there evidence of feedback from customer problems or rejections?	No

To Do | Assignee SafetyCulture Staff | Priority Low | Due 30.05.2023 12:25 PST | Created by SafetyCulture Staff

Get customer feedback.

PPAP Checklist / 8. Measurement System Analysis

Have results been reviewed and approved by the customer?	No

PPAP Checklist / 9. Dimensional Results

Is there evidence that all specification and other requirements were documented?	No

PPAP Checklist / 9. Dimensional Results

Do all requirements, including drawing notes have a response (pass/fail statement is unacceptable)?	No

PPAP Checklist / 9. Dimensional Results

Do results meet all Design Record Requirements?	No

PPAP Checklist / 9. Dimensional Results

Is all reporting against customer specification?	No

PPAP Checklist / 10. Records of Material / Performance Test Results

Are all testing results less than one (1) year old?	No

To Do | Assignee SafetyCulture Staff | Priority Low | Due 30.05.2023 12:29 PST | Created by SafetyCulture Staff

Perform materials testing.

PPAP Checklist / 11. Initial Process Studies

Is there a program to update the studies on a routine basis? No

To Do | Assignee SafetyCulture Staff | Priority Low | Due 30.05.2023 12:31 PST | Created by SafetyCulture Staff

Schedule continuous improvement studies.

PPAP Checklist / 12. Qualified Laboratory Documentation

Is a complete, signed and dated lab scope available? No

To Do | Assignee SafetyCulture Staff | Priority Low | Due 30.05.2023 12:31 PST | Created by SafetyCulture Staff

Capture digital signature.

PPAP Checklist / 12. Qualified Laboratory Documentation

Does the lab scope (as defined on the certification or addendum to the certification) list all tests performed by the lab? No

PPAP Checklist / 12. Qualified Laboratory Documentation

Are all Special Characteristics from the drawing (and drawing notes) included? No

PPAP Checklist / 15. Master Sample

Is the master sample approved by the customer and identified as a master sample? No

To Do | Assignee SafetyCulture Staff | Priority Low | Due 30.05.2023 12:49 PST | Created by SafetyCulture Staff

Gain customer approval.

PPAP Checklist / 16. Checking Aids

Are all Checking Aids numbered, calibrated, included in the Control Plan and provided for preventive maintenance plans? No

PPAP Checklist / 18. Part Submission Warrant

Is a completed bulk material checklist and warrant in place for all bulk material used in production parts? (See page 36 of AIAG PPAP 4th edition Manual) No

Other actions 0 actions

PPAP Checklist 30 flagged, 9 actions, 79.87%

1. Design Records

2 flagged, 1 action, 80%

Is a copy of the drawing included to support the part or assembly (both manufacturer and customer drawings)?	Yes
Is a list of specification supporting the production of this part provided?	Yes
Is change level verification assured or available that the supplier has the latest revisions of specification?	Yes
Is the form of dimension throughout the PPAP identical in all documentation?	No

Inconsistent drawings, one is for a headlight and the other is for a speaker.

Photo 1

Photo 2

To Do | Assignee SafetyCulture Staff | Priority Low | Due 30.05.2023 12:19 PST | Created by SafetyCulture Staff

Attach correct drawing.

Is the form of reporting dimensions throughout the PPAP according to customer drawing?	Yes
Have dimensions that affect fit, function and durability been identified?	Yes
Are reference dimensions identified to minimize inspection layout time?	Yes
Are sufficient control points and datum surfaces identified to design functional gages?	Yes
Are tolerances compatible with accepted manufacturing standards?	No

Manufacturing tolerances below industry standard.

Are there any requirements specified that can be evaluated using known inspection techniques?	Yes

2. Authorized Engineering Change Documents

100%

Are authorized engineering changes applicable?	No

3. Customer Engineering Approval

100%

Is customer engineering approval required?	No

4. Design FMEA

5 flagged, 2 actions, 66.67%

Does the FMEA drive Design Improvements as primary objective?	Yes
Is a statement attached that DFMEA is available to be presented to the customer upon request?	No

To Do | Assignee SafetyCulture Staff | Priority Low | Due 30.05.2023 12:19 PST | Created by SafetyCulture Staff

Attach DFMEA statement.

Does FMEA consider all major "lessons learned" (such as high warranty, campaigns, etc.) as input to failure mode identification?	No

Our lessons learned database is incomplete due to missing reports.

Has all dimensional tolerances and material properties been considered?	Yes
Have customer reliability and warranty data been utilized in preparing FMEA?	Yes
Have the causes been described in terms of something that can be fixed or controlled?	No
Were attribute characteristics included?	Yes
Does FMEA identify appropriate Special Characteristics candidates as input to the Special Characteristics selection process?	Yes
Are New Product Introductions and design changes included in identifying Special Characteristics?	Yes
Does Analysis/Development/Validation (A/D/V) and/or Design Verification Plan and Report (DVP&R) consider the failure modes from the Design FMEA?	Yes
Does FMEA address all high-risk Failure Modes, as identified by the FMEA team, with executable Action Plans?	No

To Do | Assignee SafetyCulture Staff | Priority Low | Due 30.05.2023 12:20 PST | Created by SafetyCulture Staff

Resolve high-risk failures.

Have appropriate countermeasures been planned or taken for high-risk numbers?	No

Not yet, no time.

Were customer plant problems used as an aid in developing the FMEA?	Yes
Have customer product problems and/or rejections been included with countermeasures?	Yes
Does submission include action list from Design Review?	Yes

5. Process Flow Diagram Assessment

2 flagged, 1 action, 86.67%

Is the Process Flow Chart in place and identifies all manufacturing operations, handling techniques, inspection steps, alternate/back-up processes, and sub-contract suppliers?	Yes

Photo 3

Photo 4

Does the process layout reflect planning so that a logical flow of material can occur during manufacturing of the product?	Yes
Does the flow chart illustrate the sequence of production?	Yes
Has the pull system/optimization been considered for this process?	Yes
Are steps in the process where product is stored and/or staged clearly identified?	Yes
Does the flow chart describe how the product will move, i.e. roller conveyor, slide containers, tubs, etc?	Yes
Are the sequences identified (operation or sequence number) so as to follow through to other PPAP documents?	Yes
Are inspection/quality assurance steps, data recording, attribute checks and/or functional testing included for each process step?	No
Does the flow chart indicating the material flow and control for handling rework and scrap?	Yes

Does the material flow consider potential quality problems due to handling and subcontracted operations?	Yes
Does the flow chart include all assembly and packaging operations?	Yes
Does the flow chart illustrate shipment to the customer and steps to consumption?	Yes
Is the process flow chart controlled, updated and reviewed for completeness?	No

Need to update.

To Do | Assignee SafetyCulture Staff | Priority Low | Due 30.05.2023 12:22 PST | Created by SafetyCulture Staff

Update process flow chart.

Does the flow chart identify in detail all in-house alternate or back-up processes and sub-contract alternate or back-up sources of supply for products or services provided?	Yes
Have alternate or back-up processes or sub-contract suppliers been validated?	Yes

6. Process FMEA

6 flagged, 60%

Does FMEA drive Process Improvements as the primary objective, with emphasis on Error/Mistake Proofing solutions?	Yes

Photo 5

Is a statement attached that PFMEA is available to be presented to the customer upon request?	No
Did the right people participate as part of the FMEA team throughout the analysis, and are adequately trained in the procedure?	Yes
Is the correct part number, engineering change, and other information documented?	Yes
Is there evidence that all print, specification, purchase order, attribute, etc. characteristics are included?	Yes
Are adequate controls in place for all characteristics?	No

Are special controls/actions in place for all Special Characteristics?	No

None for some special characteristics.

Are there measurable quality improvement projects in place for Special Characteristics?	Yes
Is Process FMEA integrated and consistent with the Process Flow Diagram, Process Control Plan and other PPAP documents?	No
Is there evidence of Statistical Process Control for all Special Characteristics or controls as identified and approved in the Control Plan?	Yes
Are quality performance indicators provided as evidence that sufficient methods are in-place to monitor and control all characteristics?	Yes
Are the top RPNs addressed with recommended actions and the actions are implemented?	No
Have capability studies been performed to validate the control of the characteristics?	Yes
Is FMEA completed during the "window of opportunity" where it could most efficiently impact the design of the product or process?	Yes
Is there evidence that the failure modes with action are carried over to the Process Control Plan?	No

7. Control Plan

2 flagged, 1 action, 88.24%

Are Control Plans and input criteria reviewed with manufacturing personnel?	Yes
Are all sections filled out including evidence of cross-functional team involvement?	Yes
Are detailed and complete Process Control Plans in place to purchase, manufacture, inspect, test, assemble, package, and ship product for each operation performed?	Yes
Does the Control Plan provide detail methods of correcting out of control processes, handling nonconforming products, and corrective action program on all quality problems including attribute variables?	Yes
Are Special Characteristics and other major, significant, features of special interest, etc. process variables identified?	No

Are there Process Control Plans in place for all customer part numbers?	Yes
Are Engineering Test and Performance requirements identified?	Yes
Is there a documented program for establishing sample sizes and test frequencies?	Yes
Are gage methods compatible and are they traceable to national standards?	Yes
Does the Control Plan provide detail on: machine make & model, machine type, machine number/identification, etc.?	Yes
Is all manufacturing equipment identified i.e. press type, paint booth type, etc.?	Yes
Is Receiving Inspection, Process Inspection, and Final Inspection included in Control Plan?	Yes

Photo 6

Have all known customer concerns been identified to facilitate the selection of Special Required/Design/Process Characteristics?	Yes
Is there evidence of feedback from customer problems or rejections?	No

To Do | Assignee SafetyCulture Staff | Priority Low | Due 30.05.2023 12:25 PST | Created by SafetyCulture Staff

Get customer feedback.

Are appropriate reaction plans included in the Control Plan?	Yes
Are Control Plans completed and readily available for alternate or backup process?	Yes
Are Process Control Plans completed/updated for new product or design changes?	Yes

8. Measurement System Analysis

1 flagged, 80%

Are MSAs for all (including attribute, process controls, etc.) gages listed on the control plan provided?	Yes

Do all MSAs refer to the correct part number and/or gage family	Yes
Did the supplier submit an acceptable MSA as above and documented in the AIAG MSA Manual?	Yes
Have correlation concerns been addressed?	Yes
Have results been reviewed and approved by the customer?	No

9. Dimensional Results

4 flagged, 60%

Are the dimensions references on a ballooned customer drawing or documented within a characteristics library?	Yes
Is there evidence that all specification and other requirements were documented?	No
Are the correct numbers of parts laid out?	Yes
Do all requirements, including drawing notes have a response (pass/fail statement is unacceptable)?	No
Are all Special Characteristics highlighted?	Yes
Do results meet all Design Record Requirements?	No
Is any nonconformance highlighted in the report?	No
Is layout result legible and understandable?	Yes
Are the inspection sheets approved and signed?	Yes
Is all reporting against customer specification?	No

10. Records of Material / Performance Test Results

1 flagged, 1 action, 90%

Are material and performance test results provided for chemical, physicals or metallurgical to the customer specification and compliance confirmed?	Yes

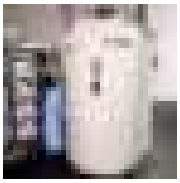
Photo 7


Photo 8

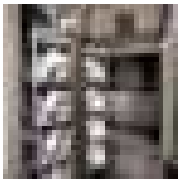
Photo 9

Does the submission include correct part and engineering	Yes

change level, specification numbers, date and change level, authorized engineering change documents not yet incorporated into the design, test date, quantity tested, the actual results, the material supplier's name and, when required by the customer, the customer-assigned vendor code, special requirements for approved steel, heat treatment, plating, etc., other relevant information specifically required by the customer?	
Is any nonconformance highlighted in the report?	No
Is product testing to be done in-house?	No
Are all testing results less than one (1) year old?	No

To Do | Assignee SafetyCulture Staff | Priority Low | Due 30.05.2023 12:29 PST | Created by SafetyCulture Staff

Perform materials testing.

Is all testing summarized with actual criteria and data (pass/fail statement is unacceptable)?	Yes
Is test loading sufficient to provide all conditions, i.e. production validation and end use?	Yes
Have parts manufactured at minimum and maximum specification been tested?	Yes
Can additional samples be tested when a reaction plan requires it?	Yes
Is the specified test sampling size and/or frequency feasible?	Yes

11. Initial Process Studies

1 flagged, 1 action, 93.33%

Is there preventive maintenance, gage and fixture calibration, tooling verification needed to maintain an acceptable level of capability?	Yes
Were results utilized in determining preventative maintenance schedules?	Yes
Was a study performed on the packaging of products for shipment, assembly operations, and final product conformance?	Yes

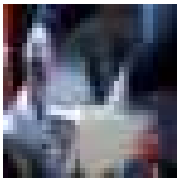
Photo 10

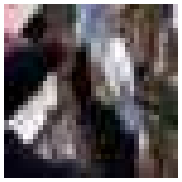
Photo 11

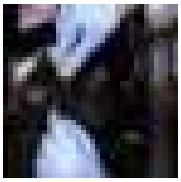
Photo 12

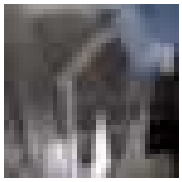
Photo 13

Is the method utilized to perform studies and calculate capability level documented along with evidence that results are within customer requirements?	Yes
Is the measurement method/device noted?	Yes
Were correlation studies required and performed?	Yes
Are results for standard deviation and the distribution noted?	Yes
Is variable data reporting preferred for process capability reporting?	Yes
Is the attribute data indicating zero (O) defects found?	Yes
Does the data indicate that the process is under control?	Yes
Is the sample size according to the agreed upon criteria and documented within the submission?	Yes
Are capability studies performed on new product and/or design changes and when process changes are implemented?	Yes
Is there evidence of capability results feedback to management and production personnel?	Yes
Is a mechanism in place to feedback the product testing results to the capability study?	Yes
Is there a program to update the studies on a routine basis?	No

To Do | Assignee SafetyCulture Staff | Priority Low | Due 30.05.2023 12:31 PST | Created by SafetyCulture Staff

Schedule continuous improvement studies.

12. Qualified Laboratory Documentation

3 flagged, 1 action, 70%

Is a complete, signed and dated lab scope available?	No

To Do | Assignee SafetyCulture Staff | Priority Low | Due 30.05.2023 12:31 PST | Created by SafetyCulture Staff

Capture digital signature.

Does the lab scope (as defined on the certification or addendum to the certification) list all tests performed by the lab?	No
Are qualified independent laboratory checks defined?	Yes

Is the quantity tested identified?	Yes
Are all Special Characteristics from the drawing (and drawing notes) included?	No
Has testing specification been identified on all tests?	Yes
Are results reported on the letterhead?	Yes
Are performance test results and material test (chemical, metallurgical, etc.) results included?	Yes
Is any nonconformance highlighted in the report?	Yes
Has customer approval been obtained for the test?	Yes

13. Appearance Approval Report

100%

Are appearance items identified on the engineering drawing?	Yes
Is the standard AAR form filled out completely?	Yes
Is a formal, approved, controlled waiver submitted?	Yes
Is formal approval in place from the proper organization (engineering, marketing, met lab)?	Yes
Was submission according to customer specification?	Yes

14. Sample Production Parts

100%

Are the formal requirements for samples documented?	Yes

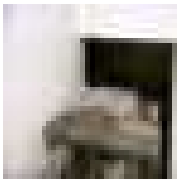
Photo 14


Photo 15


Photo 16

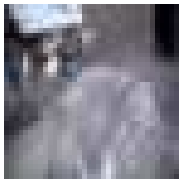
Photo 17


Photo 18

Is there a formal, approved, controlled waiver for samples attached?	Yes
Are the samples shipped before PPAP Submission with documentation of the parts included?	Yes
Were the samples measured from taken from the Production Trail Run or a production run?	Yes


Photo 19


Photo 20


Photo 21

15. Master Sample

1 flagged, 1 action, 80%

Is there evidence of a master sample according to the standard?

Yes


Photo 22

Is there a formal, approved, controlled waiver in place for master sample or documentation to consume master sample in production?

Yes

Are master samples controlled for life of PPAP records or until a new sample is approved and disposition of old sample?

Yes

Is the master sample approved by the customer and identified as a master sample?

No

To Do | Assignee SafetyCulture Staff | Priority Low | Due 30.05.2023 12:49 PST | Created by SafetyCulture Staff

Gain customer approval.

Are master samples available for multiple dies, cavities, molds, impressions, etc.?

Yes

16. Checking Aids

1 flagged, 75%

Is submission according to customer specific requirements?

Yes

Were prints copies and duplication gages submitted?

Yes

Are all Checking Aids numbered, calibrated, included in the Control Plan and provided for preventive maintenance plans?

No

Do all Checking Aids have acceptable Measurement Systems Analysis studies?

Yes

17. Customer Specific Requirements

100%

Is a list of “Specific Requirements” along with compliance

Yes

documentation provided or a waiver that none exist?	
Does reporting take place for those requirements listed and all others identified by PPAP approver representative plus other process partners (met lab, engineering, logistics, etc.)?	Yes

18. Part Submission Warrant

1 flagged, 80%

Is the warrant compliant to the AIAG PPAP standard?	Yes
Is proper detail provided for "Reason for Submission"?	Yes
Are all fields completed as per PPAP instructions?	Yes
Is a completed bulk material checklist and warrant in place for all bulk material used in production parts? (See page 36 of AIAG PPAP 4th edition Manual)	No
Submission Level	3
Are all 16 elements provided along with full explanation of any that are not provided in full?	Yes

Completion

Additional Comments

Attach missing documents, align PPAP documentation like FMEAs and special characteristics, gather digital signatures for customer approval, and provide more photo evidence of the PPAP.

Quality Manager Name & Signature

Hannah Erlin
23.05.2023 12:50 PST

Media summary

Photo 1

Photo 2

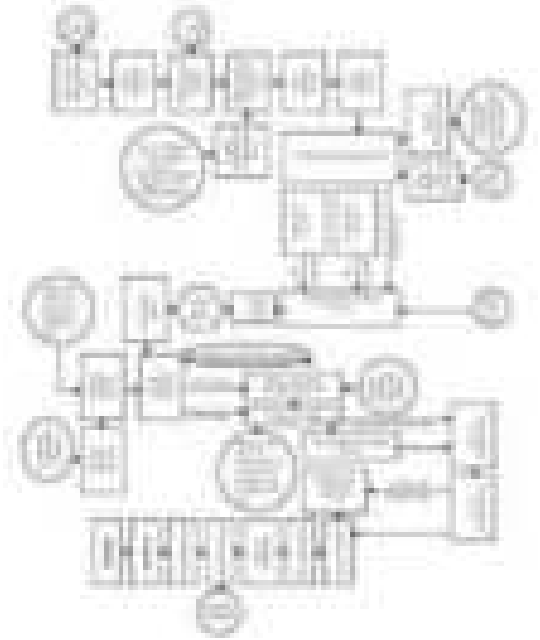

Photo 3

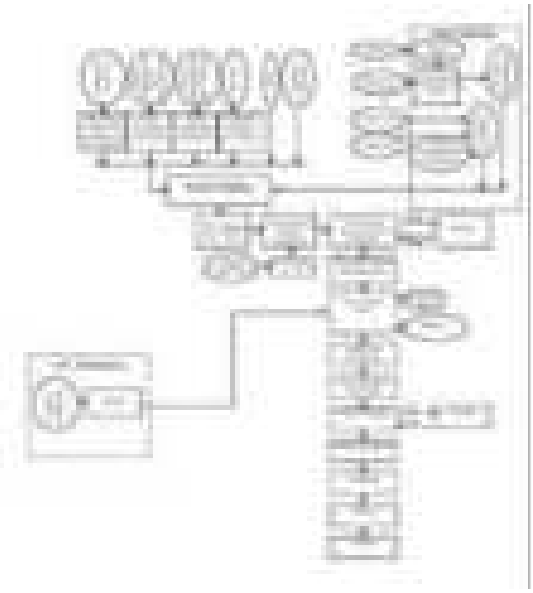

Photo 4

Photo 5

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Photo 10

Photo 11

Photo 12

Photo 13

Photo 14

Photo 15

Photo 16

Photo 17

Photo 18

Photo 19

Photo 20

Photo 21

Photo 22