ACPS-TMP-S-023 Index: 35 Dated 2024-05-22

ACPS Automotive PPAP Requirements

ACPS AUTOMOTIVE

| | Dated 2024-05-22 | | | • | |
|----------------|--|--------------------------------------|--|--|---|
| | | Commodity number | All | 302 | V = Documets which must be submitted for PPAP approval NDT = Non destructive test - N/A = Not applicable |
| VDA numbers | Requirements | Prototypes, FOTP, Sample parts | Requalification | Electro plating / galvanize | Remarks / Agreements ACPS / Supplier |
| | Cover Sheet (Evaluation) | | V | V | |
| 0.2 | Self-assessment for product, process, SW (if appl.) | | N/A | V | |
| 1. | Deliverables of product development | | | | |
| 1.1 | Technical specifications | | v | v | |
| 1.2 / 1.3 | (ACPS Automotive Drawing) Design release | | N/A | N/A | |
| | Material data sheet / IMDS | | V IMDS IDs: | V IMDS IDs: | |
| 1.4 | for all materials (packaging/wrapper & printed materials) which stay in the car | | HUK = 80908 DEI / DES = 237 MXQ = 185340 | HUK = 80908 DEI / DES = 237 MXQ = 185342 | |
| 1.5 | Product FMEA | | N/A | N/A | |
| 2.1 | Deliverables of production process development Process flow chart | | v | v | |
| | | | | | |
| 2.2 | Process FMEA Control plan | | N/A V | N/A V | |
| 3. | Deliverables of the validation of the product | | v | v | |
| 3.1 | Geometry, dimension check | v | v | v | |
| 5.1 | Geometry, dimension check | , | | , i i i i i i i i i i i i i i i i i i i | |
| 3.2 | Material check | Material Certificate (3.1) | Material Certificate (3.1) according to DIN ISO 10204 see drawing requirements | Material Certificate (3.1) according to DIN ISO 10204 see drawing requirements | |
| 3.3 | Function check | | v | N/A | |
| 3.4 | Haptic check | | If requested by ACPS N/A | N/A | |
| 3.5 | Acoustics check | | N/A | N/A | |
| 3.6 | Odour check | | N/A | N/A | |
| 3.7 | Appearance check | | N/A | N/A | |
| 3.8 | Surface check | | N/A | N/A | |
| | Approval of coating | | N/A | v | |
| 3.8.2 | Technical cleanliness Reliability tests | | V As defined on drawing or | V As defined on drawing or | |
| 3.11 | Resistance to electrostatic discharge (ESD) | | specification | specification | |
| 3.12 | Electrical safety / high-voltage safety | | | | |
| 3.13 | Electromagnetic compatibility (EMC) APQP Tracking Sheet completed for RC1 and RC2 | | N/A | If APQP was requested | |
| | parts Deliverables of the validation of the production | | N/A | V | |
| 4. | process | | | | |
| 4.1 | Achievement of special characteristics (Quantity of measured parts CmK 50 and CpK 125) $SC-S \rightarrow CmK \ge 2,0 / CpK \ge 1,67$ SC-FF> CmK >= 1,67 / CpK >= 1.33 | | v | N/A | |
| 4.1.1 | If there are no SC on the drawing, confirmation of process capability of three dimensions defined by supplier CmK >= 1,33 / CpK >= 1,0 | | V If there was a dimensional complaint last year | v | |
| 4.2 | Laboratory qualification (ISO/IEC 17025 or national equivalent) accredited by an body of ILAC MRA | | v | v | |
| 4.3 | Measured Samples (marked/ numbered and packed in separated boxes) | due to PO | N/A | V (at least 5pcs) | |
| 4.4 | Master sample | | | | |
| 4.5 | Confirmation of agreed capacity (SLA) Capacity evaluation R@R | | | v v | |
| 4.6 | Tooling list and Inventory Protokol if tool is owned by ACPS or QEM | | N/A | v | |
| 4.7 | acc. ACPS-TMP-S-016 | | V | | |
| 4.7 5. | Annual quality self audit D351144 General deliverables | | v | | |
| | Compliance with legal requirements | | N/A | N/A | |
| 5.2 | PPA status of the supply chain | | List of parts used and approval | N/A N/A | |
| 5.3 | Test/inspection equipment list | | status V | v | |
| 5.4 | Measuring system analysis for used production and lab equipment (MSA) | | v | v | |
| 5.5 | Part history (for electronics also for SW) | | v | v | |
| 5.6 | Evidence of suitability of the employed load carriers including storage - SLA | | N/A | v | |
| 5.8 | Documentation of the requalification agreement | | N/A | v | |
| 6. | Deliverables for software | | | | |
| 6.1 | Software release | | N/A | N/A | |
| 7. | | | | | |
| <i>.</i> | Customer spezific requirements | | V | v | |
| 7.1 | WEB 2020 Initial Material Sampling_Mercedes-Benz Cars | | V only for Mercedes-Benz ACPS products | V only for Mercedes-Benz ACPS products | |
| 7.2 | TESLA IMDS requirements PLM D263835 | | V only for TESLA ACPS products | V only for TESLA ACPS products | |
| 7.3 | CAMDS requirements (For asian customers) | | v | v | |

| PPAP Kick off date | |
|--|---|
| ACPS-SQ representative Name and Signature | Supplier representative Name and Signature |
| | |

Part number / Drawing index / Part index Part Name