

ACPS Automotive PPAP Requirements

ACPS AUTOMOTIVE

| | | Commodity number | All | 404 | V = Documents which must be submitted for PPAP approval NDT = Non destructive test - N/A = Not applicable |
|-------------|--|--------------------------------|--|---|--|
| VDA numbers | Requirements | Prototypes, FOTP, Sample parts | Requalification | Textiles and nets | Remarks / Agreements ACPS / Supplier |
| 0.1 | 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 (ACPS Automotive Drawing) | | V | V | |
| 1.2 / 1.3 | Design release | | N/A | N/A | |
| 1.4 | Material data sheet / IMDS for all materials (packaging/wrapper & printed materials) which stay in the car | | V IMDS IDs: HUK = 80908 DEI / DES = 237 MXQ = 185340 | V IMDS IDs: HUK = 80908 DEI / DES = 237 MXQ = 185340 | |
| 1.5 | Product FMEA | | N/A | N/A | |
| 2. | Deliverables of production process development | | | | |
| 2.1 | Process flow chart | | V | V | |
| 2.2 | Process FMEA | | N/A | minimum required is the Cover Sheet | |
| 2.3 | Control plan | | V | V | |
| 3. | Deliverables of the validation of the product | | | | |
| 3.1 | Geometry, dimension check | V | V | V | |
| 3.2 | Material check | Material Certificate (3.1) | Material Certificate (3.1) according to DIN ISO 10204 see drawing requirements | Material Certificate (3.1) - additional requirements see in drawing | |
| 3.3 | Function check | | V If requested by ACPS | V If requested by ACPS | |
| 3.4 | Haptic check | | N/A | N/A | |
| 3.5 | Acoustics check | | N/A | N/A | |
| 3.6 | Odour check | | N/A | see point 1.3 | |
| 3.7 | Appearance check | | N/A | V (see drawing requirements) | |
| 3.8 | Surface check | | N/A | (NDT Results)* | |
| 3.8.1 | Approval of coating | | N/A | V - Approved ISIR | |
| 3.8.2 | Technical cleanliness | | V | V | |
| 3.10 | Reliability tests | | As defined on drawing or specification | As defined on drawing or specification | |
| 3.11 | Resistance to electrostatic discharge (ESD) | | | | |
| 3.12 | Electrical safety / high-voltage safety | | | | |
| 3.13 | Electromagnetic compatibility (EMC) | | | | |
| | APQP Tracking Sheet completed for RC1 and RC2 parts | | N/A | If APQP was requested V | |
| 4. | Deliverables of the validation of the production process | | | | |
| 4.1 | Achievement of special characteristics (Quantity of measured parts Cmk 50 and Cpk 125) SC-S -> Cmk >= 2.0 / Cpk >= 1.67 SC-FE -> Cmk >= 1.67 / Cpk >= 1.33 | | V | V | |
| 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 (5 pcs each cavities) | |
| 4.4 | Master sample | | | If requested by ACPS 1 sample | |
| 4.5 | Confirmation of agreed capacity (SLA) | | | V | |
| 4.5.1 | Capacity evaluation R@R | | | V | |
| 4.6 | Tooling list and Inventory Protokol if tool is owned by ACPS or QEM acc. ACPS-TMP-S-016 | | N/A | V | |
| 4.7 | Annual quality self audit D351144 | | V | | |
| 5. | General deliverables | | | | |
| 5.1 | Compliance with legal requirements | | N/A | N/A | |
| 5.2 | PPA status of the supply chain | | List of parts used and approval status | List of parts used and approval status | |
| 5.3 | Test/inspection equipment list | | 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. | Customer specific requirements | | | | |
| 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 | |

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| PPAP Kick off date | |
| ACPS-SQ representative Name and Signature | Supplier representative Name and Signature |
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| Part number / Drawing index / Part index Part Name |
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