Production Part Approval Process

Belassi GmbH

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1 Purpose / Objective

1.1 Purpose

This document specifies the way of the approval process of the Purchased components and services to guarantee that the produced products consistently meet the requirements (Drawing, Special Specification, Test Instruction….) of the company Belassi.

1.2 Objective

The aim is to define clear methods, requirements and conditions for managing the product approval.

2 Scope

PPAP Process needs to start any time in case of a new developed Product and at every applicable change of existing product. PPAP needs to be submitted in the following cases:

- New Product developed
- Change to existing product (Incl. Material, Dimension, manufacturing Process)
- New Supplier (for a new or for an existing Product)
- Implement a new technology.
- Standard- and Catalogue parts are exception from the PPAP Process.

3 Further Applicable Documents

Document	Title of the Document
DQ001	Surface Quality Requirements_EN
DQ002	Quality Guideline_EN
DQ003	Test Instruction_EN
TQ005	PPAP Cover_EN_CH; PPAP Cover_EN_DE
TQ010	Supplier Information_Self Assessment_EN

4 Gender Information

Due to better legibility we are going to abstain in this document from gender specific language. Of course, everything in this document applies on men and women the same way and is meant this way.

5 Further Agreements

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6 Change History

Version	Date	Page	Type of Change

7 Distribution

This document will be distributed in the internal organisation and In the RFQ Phase to the suppliers.

Responsible for the distribution is internally the Quality –, externally the Purchasing department.

8 Attachment

Nr.	Title of the Document

9 Description

Every new and current Supplier worldwide of company Belassi must follow the rules of the PPAP in order to have an approval for the delivered Parts and components in cases listed in the Chapter 2.

9.1 Pre-Requirements for PPAP start.

9.1.1 Supplier Approval via "TQ010_Supplier Information and Self-Assessment" document,

Belassi Purchasing department submit to the potentially suppliers before receiving an attractive offer for the First Prototype parts the "TQ010_Supplier Information and Self-Assessment" document, which need to be returned filled within 1 Week to Belassi.

Belassi Technical department (PM/R&D), Purchasing Department and Quality Department take decision acc. the returned Self-Assessment/Action Plan in 3 possible way:

- Approved,
- Conditionally Approved (In this case the supplier needs to provide an Action Plan to Belassi acc. The defined rules),
- Not Approved

9.2 Part Status/PPAP Status – Process Description

9.2.1 Prototype Release Part

- In order to verify that the supplier understood the design requirements, the supplier needs to submit a Prototype part, which cannot be used for a product validation.
- The Technical Department (PM/R&D) of Belassi arrange the necessary Tests of the Prototype Part (design/function/assembly/disassembly….)
- After positive Tests (defined from technical Department) the Supplier is allowed to submit a PPAP Sample Parts incl. EVERY documentation required in the PPAP Cover.
- In case of a negative Test result, decide Belassi Project team the next necessary actions.
- Prototypes are marked in the SAP system with the additional "U" Letter on the beginning.
- E.g: **U 464789**
- Max. Order Quantity < 10 Pcs.
- Status "Prototype Released": can used for an offer from supplier side of the Prototype Parts and for a Prototype release process at Belassi.

9.2.2 Pre-Production Part (PPAP Sample)

- Belassi Quality Department prepare based on the drawing requirements and information from PM the PPAP Cover sheet and the Purchasing provide this to the supplier and asking for Quotation.
- The "TQ005_PPAP Cover" sheet define clearly the necessary documentation and the necessary tests, which need to be closed successful and completely in order to release the part for the Serial status.
  Pre-Production Parts must Produce with the Serial Conditions (Material, Tools, Jigs, Machines…)
- Positive Validation (hours defined acc. Part classification) is essential for the final release.
- PPAP Samples/First Samples are marked in the SAP system with the additional "V" Letter on the beginning. E.g.
  V 464789
  Max. Order Quantity< 30 Pcs
- Status "Pre-Production" Part: can used for an offer from supplier side of the Pre-Serial Parts and Pre-Serial release process at Belassi.

9.2.3 Serial Parts (Production Released)

- Only In case of the positive closure of the PPAP the Quality Department of Belassi submits to the supplier the Signed PPAP Cover.

- The Supplier is permitted to produce the serial Parts in the same way (machines, technology, tools and Processes) as it happened by production of the PPAP Samples.
- Serial parts are marked in the SAP system with the additionally Revision" Letter on the beginning.
  E.g. C 464789 = revision "C"
- Max. Order Quantity: No Limitation
- Status "Production released": can used for an offer from supplier side of the Serial Parts and for the Serial Part release process at Belassi.

9.3 RACI Chart

Task	Purchasing	Quality	R&D	PM	Supplier
Drawing Release	I	C	R	I	I
Sourcing Plan (released supplier acc SI&SA)	R	C	C	C	I
PPAP Kick off - Internal (Test Requirements)	C	R	I	A	I
PPAP Cover Preparation	I	R	I	C	I
PPAP Cover submission to the supplier	R/A	R/A	I	I	C
PPAP Clarification with the supplier	C	R	I	C	A
PPAP Sample Submission incl. EVERY Documentation	C	A	I	I	R
PPAP Sample Approval	I	R	I	A	I
Design Validation	C	I	A	R	I

Legend:	
R	Responsible for carryout the Task
A	Accountable for task
C	In case of problems can be consulted for the task
I	Person is informed about the process
(SI&SA = Supplier Information & Self-Assessment)	

9.4 PPAP Cover Requirements – Description

- Description of the single PPAP requirements

9.4.1 Appearance Approval Report

- The supplier needs to provide a report about the aesthetical check of the Part according the "DQ001 Surface Quality Requirements" and/or acc. the agreed Failure catalogue or Part specification.

9.4.2 All Dimension Inspection

- The Supplier needs to provide a Measuring report, which contain the Measured Value of EVERY drawing requirements. (e.g: Distances, Radius, Diameter, Evenness, Parallelism, concentricity……..)
- In case of a CMM Measuring the supplier need to refer on the drawing defined Coordinates and 0 Point. (In case of a missing information, need to be contact the R&D Department of Belassi)

9.4.3 D-FMEA

- In case of an own designed drawing, the supplier needs to submit the D-FMEA to company Belassi.
- Via D-FMEA the supplier can analyse his designed Product and evaluate the design related potentially failure risk.

9.4.4 MSA/Capability Study

- The supplier needs to guarantee a stable and consistent quality for the customer.
- If the supplier doesn't control the produced parts 100% for every drawing requirements, than every "SPC" Character on the drawing needs to be evaluated via CPK analysis - in case of a customer requirement the other (e.g. : "F") characters need to get evaluated also by every production batch.
- The limits of the Cpk Values based on the different sample quantity is defined in the DQ002_ Quality Guideline_EN.

9.4.5 P-FMEA

- In case of a customer need the supplier is committed to analyse his processes and evaluate the potentially risk in advance, to protect the customer of potentially failures.
- This Analysis is mandatory for every safety and high aesthetical affected purchased component.
- In case on RPN>100, the Supplier need to implement an Action and re-evaluate the affected Step.

9.4.6 Material Report & MSDS

- Suppliers need to submit the Material certificate of the delivered part.
- In case of an assembled part with sub-components the Material certificate needs to send for every single component.

- Furthermore, the supplier needs to provide the MSDS (Material Safety Data Sheet) of the components and catalogue parts.
- The supplier must guarantee to Belassi the REACH & ROHS conformity related the delivered parts !!!
  In case of needs, the supplier provides the CoC (Confirmation of Conformity) to Belassi.

9.4.7 Process Flow Chart

- In order to understand the supplier processes, the supplier need to provide the Process Flow Chart to Belassi.
- The Process Flow Chart includes EVERY step in the Process (Incl. controls) from Material Incoming till delivering the related component to customer.
- The single steps need to refer to the other processes.

9.4.8 Control Plan

- The Suppliers need to guarantee the drawing and requirements conformity to company Belassi.
  Based on Process Flow Chart and based on the result of the P- FMEA the suppliers need to create a product specific control plan and submit it to Belassi.
- The control plan defines the control method, equipment, control frequency, sample size, and the defined way of managing of non-conformity…

9.4.9 Packaging Instruction

- Suppliers need to guarantee for Belassi the proper protection of the produced goods for the whole transportation.
- For this reason the supplier needs to develop a Packaging Concept for the goods for Belassi and the Packaging need to define in a Packaging Instruction on supplier site.
- This Instruction needs to be submited to Belassi with the PPAP Documentation.

9.4.10 DVP&R – Functional Test

- Company Belassi defines the necessary tests from supplier side and the internally tests on the drawing or it is defined and submitted via the "TQ005_ PPAP Cover_EN_CH; PPAP Cover_EN_DE" document.
- The test conditions and the applicable ISO, JIS or DIN references are defined in the DQ003_ Test Instruction_EN from company Belassi.

9.4.11 Other Article or Article Group specification from Belassi. (Lastenheft)

- In special cases company Belassi defines the requirements in an own Product or Product Group related document.
  This document is submitted from Purchasing to the Supplier.
  The supplier needs to confirm, that every defined requirement and special specification will be accomplished.
  In case of a conflict between the specification in the Special product related Belassi specification and in the Test Instruction defined general specification, than the Product related special specification form Belassi is the valid one.

9.4.12 Belassi Validation

- The Last step of the PPAP is the validation of the Purchased part at Belassi.
- Final approval of the purchased parts is only after positive validation possible.
- The min. validation Hours are based on the classification (criticality) of the part defined.
- The description of the different Part classification is defined in the DQ003_ Test Instruction_EN.