

SPC consulting group

APQP

ADVANCED PRODUCT QUALITY PLANNING – 3RD EDITION, MARCH 2024

Objective:
Understand and interpret the five phases of APQP (3rd Edition) to properly implement or audit the process throughout the automotive supply chain.

Intended for:
- Engineering, quality, manufacturing, purchasing, and automotive supply chain professionals

Prerequisites:
- Basic knowledge of IATF 16949:2016 (preferred)
- Knowledge of your organization's control plans
- Work experience within your organization

Duration:
8 hours

Includes:
- Participant manual
- AIAG forms and checklists
- Integrated practical case study

Certificate of participation

Introduction
- Importance of APQP
- Relation to IATF 16949 and Core Tools
- PDCA cycle vs APQP

APQP Fundamentals
- Cross-functional team and process owner
- Supplier selection (sourcing)
- High-risk supplier evaluation
- Gate management (Gates 0–5)

Phase 1 – Planning and Definition
- Voice of the customer (VOC)
- Business plan / Benchmark
- Product / Process assumptions
- Design, reliability, and quality goals
- Capacity planning
- Change management
- Metrics and risk mitigation
- Management support

Phase 2 – Product Design
- Design FMEA / IMDS
- Design for Manufacturability and Assembly
- Prototype build
- DVP&R – Design Verification Plan & Report
- Design review
- Special product characteristics
- Technical specification and feasibility commitment
- Management support

Phase 3 – Process Design
- Packaging specification
- Product / Process QMS review
- Process flow diagram
- Process FMEA
- Pre-launch Control Plan
- Process definition and instructions
- Measurement Systems Analysis Plan
- Process capability plan
- Management support

Phase 4 – Product and Process Validation
- Significant production run
- MSA – Measurement System Analysis
- Dimensional report
- Part approval (PPAP) – PSW sign-off
- Production test validation
- Packaging evaluation
- Production Control Plan
- Management support

Phase 5 – Feedback and Improvement
- Variation reduction
- Customer satisfaction
- Improved delivery and service
- Lessons learned and best practices
- Management support

Workshop: Integrated Case Study
- Activities for each phase and an applied case study