

AS9145: APQP & PPAP Requirements for the Aerospace & Defense Industry



AS9145 is a standard specific to the aerospace & defense industry and applies to new product development or existing product changes. It is a structured process that includes advanced product quality planning (APQP) and production part approval process (PPAP) as part of its requirements.

The International Aerospace Quality Group (**IAQG**) established the AS9145 standard in response to the aggressive customer and regulatory requirements predominant in the aerospace and defense industry. Customers in this space often expect suppliers to exceed their requirements. AS9145 provides a framework for suppliers to meet these vigorous demands through best practices.

APQP is a process that happens during the product development lifecycle to facilitate transparent communication and feedback throughout the supply chain. This process allows suppliers to detect errors early on, incorporate customer feedback, and deliver high-quality products. **PPAP** is an output of APQP. As the last step in the APQP process, PPAP demonstrates if a supplier can replicate parts' production with consistency to a customer's standards.

There are 5 Phases of APQP which run concurrently:

- 1 Planning
- 2 Product Design & Development
- 3 Process Design & Development
- 4 Product & Process Validation
- 5 On-going Production, Use & Post Delivery Service Production

The AS9145 standard provides advantages for aerospace & defense sectors during new product development and existing product change processes. It helps strengthen validity with early detection of defects and elimination of risks. Also, AS9145 provides structured control processes for suppliers to deliver safe, reliable products that meet customer quality requirements.

The AS9145 standard specifies which PPAP elements to maintain through the product development lifecycle and serves as evidence of conducting APQP. The assembling of PPAP elements occurs during APQP:

