



Ceramic Matrix Composite Materials Guidelines for Aircraft Design and Certification

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ABSTRACT

In order for ceramic matrix composite (CMC) materials to be safely qualified and certified, appropriate standards must be available to assure we continue to meet the current level of safety that exists for traditional polymer matrix composite (PMC) materials. A methodology must be developed, specific to CMCs, to provide consistent material and process control and a protocol to characterize the material. An overview of the JAMS qualification program that is currently developing this methodology for Oxide/Oxide CMCs will be presented.

The overview will include the primary goal of developing a framework for qualification of CMCs with specific task updates including the status of the initial qualification program in development with an Oxide/Oxide prepreg, and plans to transition the data, guidelines and specifications to the Composite Materials Handbook -17 (CMH-17) and SAE International. A summary of the extensive trial physical and mechanical test results that have been conducted in order to establish an optimized methodology for qualification will also be presented.