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Superseded by PRI AC7118

Nadcap
Requirements for Composites

RATIONALE

AS7118A is being cancelled and superseded by PRI AC7118. The requirements in the document have not changed.

CANCELLATION NOTICE

This document has been declared "CANCELLED" as of July 2008 and has been superseded by AC7118. By this action, this document will remain listed in the Numerical Section of the Aerospace Standards Index noting that it is superseded by AC7118.

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1. SCOPE:

This Aerospace Standard (AS) establishes the requirements for suppliers of Composites to be accredited by Nadcap. Nadcap accreditation is granted in accordance with SAE AS7003 after demonstration of compliance with the requirements herein. The requirements may be supplemented by additional requirements specified by the Nadcap Composites Task Group. Using the corresponding Audit Criteria (PRI AC7118) will ensure that accredited Composites suppliers meet all of the requirements in this standard and all applicable supplementary standards and applicable AS7118 slash sheets.

The purpose of this audit program is to assess a supplier's ability to consistently provide a product or service that conforms to the technical specifications and customer requirements. The corresponding audit criteria is also structured to obtain information relevant to management practices and processes that directly or indirectly affect the product or service. This information will be used in the determination of accreditation status and may be used by the supplier to guide improvements in the product or service and the associated processes.

2. REFERENCES:

2.1 SAE Publications:

Available from SAE, 400 Commonwealth Drive, Warrendale, PA 15096-0001.

AIR4844	Aerospace Information Report: Composites & Metal Bonding Glossary
AS7001	National Aerospace and Defense Contractors Accreditation Program (NADCAP) Program Description
AS7002	National Aerospace and Defense Contractors Accreditation Program (NADCAP) – Rules for Implementation

2.1 (Continued):

AS7003	National Aerospace and Defense Contractors Accreditation Program (NADCAP) – Program Operation
AS7118/1	Nadcap Program – Requirements for Prepreg/Adhesive Bonding
AS7118/2	Nadcap Program – Requirements for Metal Bonding
AS7118/3	Nadcap Program – Requirements for Core Processing
AS9100	Quality Systems – Aerospace – Model for Quality Assurance in Design, Development, Production, Installation and Servicing

2.2 PRI Documents:

Available from Performance Review Institute, 161 Thorn Hill Road, Warrendale, PA 15086-7527.

AC7004	Nadcap Program – Audit Criteria for Standard Quality Program Requirements
AC7118	Nadcap Program – Audit Criteria for Composites

3. DEFINITIONS:

3.1 Composites:

Reference AIR4844: Composites and Metal Bonding Glossary

NOTE: This glossary is for guidance only.

3.2 Controlled Contamination Area (CCA):

An enclosed room where environmental conditions are controlled, and contaminants detrimental to adhesion are restricted. CCA is required for prepreg lay-up, metal bonding, and core fabrication operations using uncured prepreg or film/foaming adhesives. Potting of core within cocure assemblies shall be performed in a CCA.

3.3 Environmentally Monitored Area (EMA):

An area within the facility where contaminants detrimental to adhesion are restricted, and environmental conditions are monitored. EMA is required for machining and potting of core, wet lay-up, installation of inserts, and the application of adhesives for secondary bonding at room temperature or oven curing.

4. QUALITY SYSTEM:

4.1 The supplier's quality system shall be approved by one of the following:

- a. Nadcap approval to PRI AC7004.
- b. Certification/registration program recognized by Nadcap.

5. GENERAL CUSTOMER REQUIREMENTS:

5.1 Process Approval:

5.1.1 Customer approval shall be obtained for the following processes, as required:

- a. Prepreg/Adhesive Bonding
- b. Metal Bonding
- c. Core Processing

NOTE: May include hand lay-up, tape placement, pressure bag molding, vacuum bag molding, adhesive bonding, core processing and machining of composites.

5.2 Sub-tier Suppliers:

5.2.1 The supplier shall document flow down of customer requirements to any sub-tier suppliers.

5.2.2 Customer approved sources shall be used for subcontractors, if required by the customer.

5.3 Internal Audits/Workstation Audits:

5.3.1 The supplier shall have a procedure requiring internal audits to verify compliance to process requirements.

5.3.2 Internal audits shall be performed according to the supplier's procedure.

5.4 Software Quality Assurance (SQA):

NOTE: Software quality assurance procedures shall meet customer requirements, if applicable. Also, if an AC7004 or equivalent quality system audit was conducted as part of this special process audit or a previous special process audit, then this paragraph is not applicable.