



Australian Government

Department of Education, Employment and Workplace Relations

MEA413A Seal aircraft and aircraft component structural seams

Revision Number: 2

MEA413A Seal aircraft and aircraft component structural seams

Modification History

Minor formatting and editorial changes made. Prerequisite unit version code updated.

Unit Descriptor

This unit covers the competencies required to seal surface seams of aircraft and aircraft components prior to application of surface coatings. No licensing requirements apply to this unit at the time of publication, but compliance with legislation and regulations governing handling and disposal of hazardous materials is included in the unit. This unit is used in workplaces that operate under the airworthiness regulatory systems of the ADF and CASA.

Application of the Unit

This unit requires application of skills and knowledge relating to the application of sealant to the surface seams of aircraft and aircraft components prior to surface coating application.

Applications include fixed and rotary wing aircraft and aircraft components.

Licensing/Regulatory Information

Not applicable.

Pre-Requisites

MEA101B	Interpret occupational health and safety practices in aviation maintenance
MEA103B	Plan and organise aviation maintenance work activity
MEA105C	Apply quality standards applicable to aviation maintenance processes
MEA107B	Interpret and use aviation maintenance industry manuals and specifications
MEA108B	Complete aviation maintenance industry documentation
MEA109B	Perform basic hand skills, standard trade practices and fundamentals in aviation maintenance

Employability Skills Information

This unit contains employability skills.

Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.
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Elements and Performance Criteria

1. Prepare to undertake seam sealing
 - 1.1. The seam sealing task is identified from maintenance documentation and enterprise procedures
 - 1.2. Applicable enterprise procedures, process specifications and maintenance publications are used to identify materials and tools to be used for seam sealing
 - 1.3. Aircraft or component identification is matched with relevant maintenance documentation
2. Prepare seams for application of sealant
 - 2.1. **OHS requirements** are identified and complied with and PPE is checked for correct fit and function
 - 2.2. Materials and tools required for sealant application are assembled
 - 2.3. Masking is applied in accordance with enterprise procedures and/or process specifications
 - 2.4. Seams are prepared for sealant application in accordance with enterprise procedures and/or process specifications
3. Mix sealant
 - 3.1. Environment is established in accordance with enterprise procedures and/or process specifications
 - 3.2. The applicable sealant is mixed in accordance with manufacturer's specifications
4. Apply sealant to seams
 - 4.1. Sealant is applied in accordance with enterprise procedures and/or process specifications
 - 4.2. The sealed seam is inspected and blemishes, voids or gaps are filled
 - 4.3. Masking materials are removed
 - 4.4. Waste and/or surplus materials are disposed of in accordance with **legislative, regulatory and enterprise procedures**
 - 4.5. Documentation is completed in accordance with standard enterprise procedures
 - 4.6. Aircraft or component, equipment and work area is left in a condition enabling the next task to begin

Required Skills and Knowledge

Required skills

Look for evidence that confirms skills in:

- applying OHS procedures relating to seam sealing, including the selection and correct use of PPE
- selecting and applying masking materials
- selecting, mixing and applying applicable sealants
- using MSDS
- selecting and using applicable enterprise procedures and/or process specifications
- correctly disposing of waste materials
- cleaning of work area and maintaining equipment and tools

Required knowledge

Look for evidence that confirms knowledge of:

- relevant enterprise procedures, process specifications and maintenance publications
- OHS procedures relating to seam sealing, including the selection and use of PPE
- how to obtain MSDS
- types of sealants used for seam sealing
- types of masking materials
- environmental legislation and regulations relating to the storage, use and disposal of hazardous materials

Evidence Guide

<p>The Evidence Guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.</p>	
<p>Overview of assessment</p>	<p>A person who demonstrates competency in this unit must be able to seal surface seams of aircraft and aircraft components in accordance with specified procedures while using the correct PPE and observing all relevant safety precautions and environmental protection processes.</p>
<p>Critical aspects for assessment and evidence required to demonstrate competency in this unit</p>	<p>The underlying skills inherent in this unit should be transferable across a range of seam sealing tasks associated with surface seams of aircraft and aircraft components. It is essential that applicable processes, cleanliness requirements and safety precautions, including the correct use of PPE, and application of environmental protection procedures are fully observed, understood and complied with. Ability to interpret seam sealing procedures and apply them in practice is critical.</p> <p>Evidence of transferability of skills and knowledge related to seam sealing is essential. This is to be demonstrated through application of sealant to surface seams across a range of aircraft and component tasks. The work plan should take account of applicable safety and quality requirements in accordance with the industry and regulatory standards.</p> <p>A person cannot be assessed as competent until it can be demonstrated to the satisfaction of the workplace assessor that the relevant elements of the unit of competency are being achieved under routine supervision on a representative range of seam sealing tasks. This shall be established via the records in the Log of Industrial Experience and Achievement or, where appropriate, an equivalent Industry Evidence Guide.</p>
<p>Context of and specific resources for assessment</p>	<p>Competency should be assessed in the workplace or simulated workplace using materials, tools and equipment specified in the maintenance manuals and applicable procedures. It is also expected that general and special purpose tools and ground support equipment would be used where appropriate.</p>
<p>Method of assessment</p>	

Guidance information for assessment	
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Range Statement

<p>The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.</p>	
Application of this unit may relate to:	<p>Application of this unit may relate to:</p> <ul style="list-style-type: none"> • scheduled or unscheduled maintenance • individual or team-related activities
Procedures and requirements	<p>Refer to industry standard procedures specified by manufacturers, regulatory authorities or the enterprise</p>
OHS requirements	<p>OHS requirements are identified from relevant:</p> <ul style="list-style-type: none"> • state/territory/Commonwealth OHS legislation, regulations and codes • procedures manual • safety manual • work instructions • maintenance organisation manual • MSDS • Defence regulations and instructions • standing instructions
Legislative, regulatory and enterprise procedures	<p>Legislative, regulatory and enterprise procedures may include:</p> <ul style="list-style-type: none"> • state/territory/Commonwealth environmental legislation, regulations and codes for the storage and disposal of hazardous and toxic materials • MSDS • maintenance organisation manual • procedures manual • work instructions • relevant Defence regulations and instructions • standing instructions

Unit Sector(s)

Aviation maintenance

Competency field

Co-requisite units

Not applicable