



Australian Government

MEA413 Seal aircraft and aircraft component structural seams

Release: 2

MEA413 Seal aircraft and aircraft component structural seams

Modification History

Release 2. Equivalent to MEA413 Seal aircraft and aircraft component structural seams with amended prerequisite codes.

Application

This unit of competency 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 on fixed and rotary wing aircraft and aircraft components during the performance of scheduled or unscheduled maintenance. Work may be performed individually or as part of a team.

No licensing requirements apply to this unit at the time of publication, but compliance with legislation and regulations for the handling and disposal of hazardous materials is included in the unit.

The unit is used in workplaces that operate under the airworthiness regulatory systems of the Australian Defence Force (ADF) and the Civil Aviation Safety Authority (CASA).

Pre-requisite Unit

MEA107	Interpret and use aviation maintenance industry manuals and specifications
MEA154	Apply work health and safety practices in aviation maintenance
MEA155	Plan and organise aviation maintenance work activities
MEA156	Apply quality standards during aviation maintenance activities
MEA157	Complete aviation maintenance industry documentation
MEA158	Perform basic hand skills, standard trade practices and fundamentals in aviation maintenance

Competency Field

Aviation maintenance

Unit Sector

Elements and Performance Criteria

Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
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 Work health and safety (WHS) requirements are identified and complied with and personal protective equipment (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 while observing all relevant WHS requirements, including the use of material safety data sheets (MSDS) and items of PPE
4. Apply sealant to seams	4.1 Sealant is applied in accordance with enterprise procedures and/or process specifications while observing all relevant WHS requirements, including the use of MSDS and items of PPE 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

Foundation Skills

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

This field allows for different work environments and conditions that may affect performance. Essential operating conditions that may be present (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) are included.

Procedures and requirements include:

- Industry standard procedures specified by manufacturers, regulatory authorities or the enterprise

WHS requirements are identified from:

- Commonwealth/state/territory WHS legislation, regulations and codes
- Procedures manuals
- Safety manuals
- Work instructions
- Maintenance organisation manuals
- MSDS
- Defence regulations and instructions
- Standing instructions

Legislative, regulatory and enterprise procedures include:

- Commonwealth/state/territory environmental legislation, regulations and codes for the storage and disposal of hazardous and toxic materials
- MSDS
- Maintenance organisation manuals
- Procedures manuals
- Work instructions
- Relevant Defence regulations and instructions
- Standing instructions

Unit Mapping Information

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Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=ce216c9c-04d5-4b3b-9bcf-4e81d0950371>

Assessment Requirements for MEA413 Seal aircraft and aircraft component structural seams

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Performance Evidence

Evidence required to demonstrate competency in this unit must be relevant to and satisfy all of the requirements of the elements and performance criteria under the specified conditions of assessment, and must include:

- applying WHS 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 maintenance of equipment and tools.

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.

This is to be demonstrated through application of sealant to surface seams across a range of aircraft and component tasks.

Knowledge Evidence

Evidence required to demonstrate competency in this unit must be relevant to and satisfy all of the requirements of the elements and performance criteria and include knowledge of:

- relevant enterprise procedures, process specifications and maintenance publications
- WHS 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.

Assessment Conditions

- 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.
- The work plan should take account of applicable safety and quality requirements in accordance with the industry and regulatory standards.
- The following conditions of assessment represent the requirements of the Regulators (ADF and CASA) and maintenance stakeholders and must be rigorously observed.
- A person cannot be assessed as competent until it can be demonstrated to the satisfaction of the workplace assessor that the relevant elements and performance criteria of the unit of competency are being achieved under routine supervision on a representative range of seam sealing tasks that are performed at the enterprise.
- This shall be established via the records in the Log of Industrial Experience and Achievement or, where appropriate, an equivalent Industry Evidence Guide (for details refer to the Companion Volume Assessment Guidelines).
- Assessors must satisfy the requirements of the National Vocational Education and Training Regulator (Australian Skills Quality Authority, or its successors).

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