



Australian Government

MEA415 Paint aircraft surfaces

Release: 2

MEA415 Paint aircraft surfaces

Modification History

Release 2. Equivalent to MEA415 Paint aircraft surfaces with amended prerequisite codes.

Application

This unit of competency requires application of skills and knowledge relating to final preparation of surfaces and application of paint finishes to 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

AURVTP2003	Prepare spray painting materials and equipment
AURVTP012	Apply air dry and polyurethane refinishing materials
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.

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|---------------------------|--|
| 1. Prepare for painting | 1.1 The painting task is identified from maintenance documentation and enterprise procedures and type of substrate is identified |
| | 1.2 Enterprise procedures and maintenance publications are used to identify required materials and tools and necessary items are assembled |
| | 1.3 Aircraft or component identification is matched with relevant maintenance documentation |
| | 1.4 Surfaces are prepared for application of paint in accordance with enterprise procedures and/or process specification |
| | 1.5 Masking and barrier materials are applied as required by task |
| 2. Apply primer | 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 Temperature and humidity requirements are complied with |
| | 2.3 Specified primer is applied in accordance with enterprise procedures and/or process specification |
| | 2.4 Reject paintwork is identified and rectified in accordance with enterprise procedures and/or process specification |
| | 2.5 Equipment is cleaned |
| 3. Apply surface top coat | 3.1 WHS requirements are identified and complied with and PPE is checked for correct fit and function |
| | 3.2 Temperature and humidity requirements are complied with |
| | 3.3 The specified top coat material is prepared in accordance with manufacturer's instructions |

		3.4	Top coat is applied in accordance with enterprise procedures and/or process specifications
		3.5	Reject paintwork is identified and rectified in accordance with enterprise procedures and/or process specifications
		3.6	Masking and barrier materials are removed and final finishing of the surface is completed as required
		3.7	Documentation is completed in accordance with standard enterprise procedures
4.	Clean up work area and maintain equipment	4.1	Waste material is removed and disposed of or stored in accordance with legislative, regulatory and enterprise procedures
		4.2	Equipment is cleaned in accordance with enterprise procedures or manufacturer's instructions
		4.3	Equipment is checked for serviceability and unserviceable items are dealt with in accordance with enterprise procedures
		4.4	Tools are cleaned and maintained in accordance with enterprise procedures
		4.5	Work area is cleaned and inspected for serviceable condition

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.

Type of substrate includes:

- High strength steel

	• Aluminium alloys • Composite fibre • Plastic • Transparencies • Magnesium alloy • Fabric • Wood
Required materials and tools include:	• Epoxy primers • Lacquer primers • Acrylic top coats • Polyurethane top coats • Chemicals • Masking and barrier materials • Low pressure gun or touch-up gun • General purpose suction feed spray guns • Airless spray units • Electrostatic spray equipment • Sanding/polishing equipment and materials • PPE
WHS requirements are identified from relevant:	• Commonwealth/state/territory WHS legislation, regulations and codes • Procedures manuals • Safety manuals • Work instructions • Maintenance organisation manuals • Material safety data sheets (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 MEA415 Paint aircraft surfaces

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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 paint application, including the selection and correct use of PPE
- selecting and applying masking and barrier materials
- identifying, preparing and using applicable primers and top coats
- using MSDS
- using manufacturer specifications and directions
- selecting and using applicable paint application equipment
- preparing surfaces for paint application
- correctly disposing of waste materials
- cleaning and maintenance of equipment and tools.

The underlying skills inherent in this unit should be transferable across a range of paint application tasks associated with aircraft and aircraft components. It is essential that system testing procedures, 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 coating application procedures and apply them in practice is critical.

This is to be demonstrated through application of paint finishes across a range of aircraft and component substrate types.

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 the application of aerospace coatings, including PPE and fume extraction
- how to obtain MSDS
- manufacturer specifications and directions
- types of paint finishes and applicability to various substrates
- procedures for preparing surfaces for paint application
- types of masking and barrier materials
- methods used for final finishing of surfaces

- 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 paint finish application 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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