



Australian Government

MEASTR0007 Pre-treat aluminium alloy surfaces

Release: 1

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Modification History

Release 1. Application changed. Elements and Performance Criteria changed. Foundation Skills made explicit. Range of Conditions removed, and relevant information moved to Assessment Requirements. Assessment Requirements clarified. Supersedes and is equivalent to MEA412 Pre-treat aluminium alloy surfaces.

Application

This unit describes the skills and knowledge required to apply knowledge of chemical conversion coatings to pre-treat aluminium alloy surfaces of fixed and rotary wing aircraft and aircraft components with aluminium alloy surfaces during scheduled or unscheduled maintenance. Work may be performed individually or as part of a team.

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

Any other relevant legislation, industry standards and codes of practice within Australia must be applied.

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

Elements and Performance Criteria

Elements	Performance Criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare surfaces for application of chemical conversion coating	1.1 Identify required pre-treatment tasks from maintenance documentation and enterprise procedures 1.2 Identify required materials and tools from enterprise procedures or

	process specifications 1.3 Match aircraft or component identification to the correct maintenance documentation 1.4 Identify and comply with work health and safety (WHS) requirements and check personal protective equipment (PPE) for correct fit and function 1.5 Remove common surface soils and perform required water-break testing in accordance with enterprise procedures or process specifications 1.6 Complete masking on areas where pre-treatment is not required in accordance with identified requirements 1.7 Prepare aluminium alloy substrate for application of conversion coating in accordance with enterprise procedures or process specifications
2. Apply chemical conversion coating	2.1 Establish and maintain correct environment for conversion coating application in accordance with requirements 2.2 Apply required chemical conversion coating while observing all relevant WHS requirements, including using material safety data sheets (MSDSs) and items of PPE 2.3 Remove masking and leave aircraft or component in a suitable condition for the next task in accordance with standard enterprise procedures 2.4 Document completion of pre-treatment process in accordance with standard enterprise procedures
3. Clean up work area and maintain equipment	3.1 Collect and store materials that can be reused in accordance with enterprise procedures 3.2 Remove and dispose of or store waste materials in accordance with legislative, regulatory and enterprise procedures 3.3 Clean equipment in accordance with enterprise procedures or manufacturer's instructions while observing all relevant WHS requirements, including the use of MSDSs and items of PPE 3.4 Check equipment for serviceability and deal with unserviceable items in accordance with enterprise procedures 3.5 Clean and maintain tools in accordance with enterprise procedures 3.6 Clean work area and inspect for serviceable condition in accordance with enterprise procedures

Foundation Skills

This section describes those language, literacy, numeracy and employment skills that are essential to performance but not explicit in the performance criteria.

- Reading skills to interpret maintenance manuals and pre-treatment procedures.
- Numeracy skills to interpret technical information.

Other foundation skills essential to performance are explicit in the performance criteria of this unit.

Unit Mapping Information

Release 1. Supersedes and is equivalent to MEA412 Pre-treat aluminium alloy surfaces.

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 MEASTR0007 Pre-treat aluminium alloy surfaces

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Performance Evidence

There must be evidence the candidate has completed all the tasks outlined in the elements and performance criteria of this unit, and demonstrated the ability to:

- pre-treat aluminium alloy surfaces during scheduled or unscheduled maintenance on at least two occasions
- apply procedures, cleanliness requirements and safety precautions at all times, and as relevant to the surfaces being worked on.
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Knowledge Evidence

There must be evidence the candidate has knowledge of:

- relevant enterprise procedures and/or process specifications, as outlined in:
 - Commonwealth, state and territory environmental legislation, regulations and codes for the storage and disposal of hazardous and toxic materials
 - material safety data sheets (MSDSs)
 - maintenance organisation manual
 - procedures manual
 - work instructions
 - relevant defence regulations and instructions
 - standing instructions
- work health and safety (WHS) procedures for aluminium alloy pre-treatment processes, including the use of personal protective equipment (PPE), as outlined in:
 - Commonwealth, state and territory WHS legislation, regulations and codes
 - procedures manual
 - safety manual
 - work instructions
 - maintenance organisation manual
 - MSDSs
 - defence regulations and instructions
 - standing instructions

- how to obtain MSDSs
- types of masking and barrier materials
- types of pre-treatment processes
- the environmental conditions that may affect coatings
- common types of surface soils, including:
 - paint
 - dirt
 - grease
 - oils
 - dust
 - adhesives
- environmental legislation and regulations relating to the storage, use and disposal of hazardous materials.
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Assessment Conditions

The following conditions of assessment represent the requirements of the regulators (DASA and CASA) and maintenance stakeholders and must be rigorously observed.

Skills must have been demonstrated under routine supervision in the workplace or in a simulated environment that reflects workplace conditions and contingencies encountered in removing surface coatings from aircraft or aircraft components. The following conditions must be met for this unit:

- use of suitable facilities, equipment and resources, including:
 - workplace procedures, manufacturing specifications, codes, standards, manuals, and reference materials relevant to removing surface coatings from aircraft or aircraft components
 - materials, tools and equipment specified in the maintenance manuals and applicable procedures
 - general and special-purpose tools and items of ground support.

Evidence of tasks demonstrating competency must be recorded in a log of industrial experience and achievement.

Assessors must satisfy the NVR/AQTF mandatory competency requirements for assessors.

Links

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