

<b>Title</b>	<b>Anodise aeronautical grade aluminium components</b>		
<b>Level</b>	<b>4</b>	<b>Credits</b>	<b>10</b>

<b>Purpose</b>	<p>People credited with this unit standard are able to: prepare to anodise aeronautical grade aluminium components; carry out anodising; perform post-anodising treatment; and complete the anodising task.</p> <p>They are also able to operate, be in full control, and take responsibility for the process.</p>
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<b>Classification</b>	Aeronautical Engineering > Aeronautical Electroplating
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<b>Available grade</b>	Achieved
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### Guidance Information

- All tasks must be carried out in accordance with enterprise procedures.
- Definition**  
*Enterprise procedures* – procedures used by the organisation carrying out the work and applicable to the tasks being carried out. Examples are – standard operating procedures, safety procedures, equipment operating procedures, codes of practice, quality management practices and standards, procedures to comply with legislative and local body requirements.
- Acts, regulations, and bylaws regarding the handling of toxic material and waste must be complied with during assessment against this unit standard.
- Solution temperature should be appropriate for the solution used as specified in enterprise procedures.
- Specifications will determine either voltage or current control.
- This unit standard applies to an anodic coating on any aeronautical grade aluminium.
- Operating parameters may include treatment times, current or voltage, pH, temperature, anode condition.

### Outcomes and performance criteria

#### Outcome 1

Prepare to anodise aeronautical grade aluminium components.

**Performance criteria**

- 1.1 Task is determined by reviewing maintenance documentation and enterprise procedures.
- 1.2 Component identity is confirmed with documentation.
- 1.3 Work area is prepared and checked.  
  
Range may include but is not limited to – materials, equipment, safety equipment, environmental conditions established.
- 1.4 Solution parameters are analysed to ensure process tolerances are met.
- 1.5 Component is stripped.
- 1.6 Corrosion removal is carried out.
- 1.7 Dimensional tolerance assessment is completed to ensure conformity with specifications.

**Outcome 2**

Carry out anodising.

**Performance criteria**

- 2.1 Component is masked.  
  
Range may include but is not limited to – tape, paint, lacquer, metallic foil, wax, plastic sheeting, fixtures.
- 2.2 Anodise coating is applied to aluminium component.
- 2.3 Equipment is monitored and adjusted.  
  
Range may include but is not limited to – solution agitation, solution temperature, current density, pH, voltage.

**Outcome 3**

Perform post-anodising treatment.

**Performance criteria**

- 3.1 Masking and jigging is removed.
- 3.2 Component is sealed.

3.3 Quality control is carried out.

Range may include but is not limited to – visual inspection, adhesion testing, abrasion resistance test.

#### Outcome 4

Complete the anodising task.

#### Performance criteria

4.1 Component is prepared for use, storage, or transit.

Range may include but is not limited to – inhibiting, packing.

4.2 Resources are checked for serviceability and returned to service or storage.

Range may include but is not limited to – tools, equipment, safety equipment.

4.3 Leftover parts and materials are disposed of.

Range may include but is not limited to – serviceable, unserviceable, surplus, waste, scrap, hazardous.

4.4 Documentation is completed.

Range may include but is not limited to – labels, work cards, release notes, certification.

4.5 Work area is left in a state that enables the next task to begin.

<b>Planned review date</b>	31 December 2027
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#### Status information and last date for assessment for superseded versions

Process	Version	Date	Last Date for Assessment
Registration	1	23 November 2017	31 December 2021
Review	2	26 March 2020	N/A
Rollover and Revision	3	26 April 2024	N/A

<b>Consent and Moderation Requirements (CMR) reference</b>	0028
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This CMR can be accessed at <http://www.nzqa.govt.nz/framework/search/index.do>.

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**Comments on this unit standard**

Please contact Ringa Hora Services Workforce Development Council  
[qualifications@ringahora.nz](mailto:qualifications@ringahora.nz) if you wish to suggest changes to the content of this unit standard.