

<b>Title</b>	<b>Install acid resistant refractory linings</b>		
<b>Level</b>	<b>3</b>	<b>Credits</b>	<b>8</b>

<b>Purpose</b>	People credited with this unit standard are able to: set up work area for installation; apply membrane; lay bricks; and complete work operations.
----------------	---

<b>Classification</b>	Masonry > Refractory Installation
-----------------------	-----------------------------------

<b>Available grade</b>	Achieved
------------------------	----------

---

## Guidance Information

### 1 Definitions

*Industry practice* refers to the expected standard required at the enterprise in which credit for this standard is sought, such standards may be set down in: industry codes of practice, enterprise procedures, which refer to documented procedures specific to the enterprise and set out the standard business practice, and activities of that enterprise.

*Site safety plan* refers to the documented safety plan which is required by law to ensure compliance with the Health and Safety in Employment Act, 1992.

*Specifications* refer to any, or all of the following:  
manufacturer's specifications and/or recommendations;  
site and/or workplace specific requirements.

*Plant* refers to appliances, equipment, fittings, furniture, implements, machinery, tools, vehicles, plus parts, controls, and anything connected to such plant.

### 2 Legislation relevant to this unit standard include the following:

Health and Safety in Employment Act, 1992;

Resource Management Act, 1991;

*Best Practice Guideline for Scaffolding*, 2003 Department of Labour available from <http://www.osh.dol.govt.nz/order/catalogue/scaffolding.shtml>.

---

## Outcomes and performance criteria

### Outcome 1

Set up refractory work area.

### Performance criteria

- 1.1 Site is verified as safe to enter prior to entry in accordance with the specifications.

- 1.2 Site safety procedures are complied with as set down in the site safety plan.
- 1.3 Area of installation is confirmed as being in accordance with the specifications.
- 1.4 Actions taken in the event that area is unsuitable for installation are in accordance with industry practice.
- 1.5 Materials used are in accordance with the specifications.
- 1.6 Anchorage and formwork are completed in accordance with the specifications.
- 1.7 Plant and materials are set up to ensure safe access for work operations.
- 1.8 Safety equipment selected for specific work operations is accessible and operational.
- 1.9 Substrate is prepared in accordance with the specifications.
- 1.10 Access equipment is erected to comply with legislative requirements.

## **Outcome 2**

Apply membrane.

### **Performance criteria**

- 2.1 Membrane is mixed in accordance with the specifications.
- 2.2 Membrane is installed in accordance with the specifications.  
Range        layed, trowelled, sprayed.
- 2.3 Membrane is cured in accordance with the specifications.

## **Outcome 3**

Lay bricks.

### **Performance criteria**

- 3.1 Mortar is mixed in accordance with the specifications.
- 3.2 First course is laid level, plumb and to line in accordance with the specifications and working drawings.
- 3.3 Joint thickness and coverage is controlled in accordance with the specifications.
- 3.4 Subsequent courses are laid in accordance with the specifications and working drawings.
- 3.5 Anchors are fitted in accordance with the specifications.

- 3.6 Bricks are bonded in accordance with the specifications.
- 3.7 Pointing is completed in accordance with the specifications.
- 3.8 Jointing is cured in accordance with the specifications.

#### Outcome 4

Complete work operations.

#### Performance criteria

- 4.1 All operations are completed without damage to project, plant, or materials or injury to staff.
- 4.2 All activities comply with safety requirements set down in the site safety plan.
- 4.3 All plant is used, maintained, cleaned, and stored and work site left as specified in accordance with manufacturers, and/or legislative requirements.
- 4.4 All documentation is completed in accordance with industry practice.
- 4.5 Surplus materials are dealt with in accordance with industry practice and legislative requirements.

**This unit standard is expiring. Assessment against the standard must take place by the last date for assessment set out below.**

#### Status information and last date for assessment for superseded versions

Process	Version	Date	Last Date for Assessment
Registration	1	16 January 1997	31 December 2011
Revision	2	8 April 1999	31 December 2011
Review	3	21 September 2007	31 December 2011
Revision	4	21 July 2011	31 December 2024
Review	5	30 June 2022	31 December 2024

<b>Consent and Moderation Requirements (CMR) reference</b>	0048
--	------

This CMR can be accessed at <http://www.nzqa.govt.nz/framework/search/index.do>.