



**Australian Government**

**Department of Education, Employment and Workplace Relations**

# **PMC552095B Prepare for, install and repair ceramic fibre**

**Revision Number: 1**

## PMC552095B Prepare for, install and repair ceramic fibre

### Modification History

Not applicable.

### Unit Descriptor

<b>Unit descriptor</b>	This unit of competency covers the installation of ceramic fibre refractory. It involves interpreting information, following safe work practices, installing and repairing ceramic fibre and using tools and ancillary equipment.
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### Application of the Unit

<b>Application of the unit</b>	<p>This unit of competency applies to operators who install and/or repair ceramic fibre refractory. Ceramic fibre may be the total requirements for the job, or it may need to join other refractory.</p> <p>This competency is typically performed by operators working either independently or as part of a work team. At all times they would be liaising and cooperating with other members of the team.</p>
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### Licensing/Regulatory Information

Not applicable.

### Pre-Requisites

<b>Prerequisite units</b>		

## Employability Skills Information

<b>Employability skills</b>	This unit contains employability skills.
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## Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.
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## Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Establish the suitability of resources	1.1. Check all information conforms with resources 1.2. Record discrepancies in information 1.3. Report any inaccuracies in information to the person in charge 1.4. Identify and select materials, components, tools and equipment
2. Prepare for and install ceramic fibre	2.1. Prepare backgrounds, cutting out, demolition and keying 2.2. Install extraction equipment 2.3. Weld anchors using automatic stud guns 2.4. Install ceramic fibre and make correct joints 2.5. Repair ceramic fibre
3. Contribute to controlling hazards in work area	3.1. Identify hazards in work area 3.2. Assess risks arising from those hazards 3.3. Take appropriate action to control risks to procedures and duty of care

## Required Skills and Knowledge

### REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge required for this unit.

#### Required skills

Required skills include:

- observing and monitoring work practices
- adjusting/correcting/responding to work requirements
- identifying and solving problems
- manual skills
- physical handling skills
- using tools and equipment safely
- working in a team or individually, as required
- reading and numeracy to interpret workplace documents and technical information

#### Required knowledge

Required knowledge includes:

- types and characteristics of ceramic fibre
- dust hazards and methods of minimising risks
- types and uses of respiratory equipment
- types and uses of extraction devices
- anchorage systems
- methods of welding anchors to background surfaces
- methods of installing and jointing ceramic fibre
- methods of rigidising surface of installed ceramic fibre
- types and uses of temporary support
- methods of protecting work during installation
- safeguards to take during reinstatement work
- methods of removing damaged refractory
- methods of keying, bonding new to existing
- materials sources
- materials types/categorisation
- methods of production
- familiarity with installation techniques
- familiarity with principles of selection
- familiarity with variety of applications

## Evidence Guide

<b>EVIDENCE GUIDE</b>	
The Evidence Guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.	
<b>Overview of assessment</b>	The unit will be assessed in as holistic a manner as is practical and may be integrated with the assessment of other relevant units of competency.
<b>Critical aspects for assessment and evidence required to demonstrate competency in this unit</b>	<p>Competence must be demonstrated in the operation of all ancillary equipment to the level required for this unit of competency.</p> <p>Competence must be demonstrated in the ability to recognise and analyse potential situations requiring action and then in implementing appropriate corrective action.</p> <p>Consistent performance should be demonstrated. In particular look to see that:</p> <ul style="list-style-type: none"> <li>• appropriate attachment of the ceramic fibre is ensured</li> <li>• jointing is correct.</li> </ul>
<b>Context of and specific resources for assessment</b>	<p>Assessment will require access to an operating plant over an extended period of time, or a suitable method of gathering evidence of operating ability over a range of situations.</p> <p>Assessment will occur over a range of situations which will include disruptions to normal, smooth operation.</p> <p>Simulation or case studies/scenarios may be required to allow for timely assessment of parts of this unit of competency. Simulation should be based on the actual plant and will include 'walk-throughs' of the relevant competency components. A bank of scenarios/case studies/what ifs and questions will be required to probe the reasoning behind observable actions.</p>
<b>Method of assessment</b>	<p>In all plants it may be appropriate to assess this unit concurrently with relevant teamwork and communication units.</p> <p>It may be appropriate to assess this unit concurrently with other relevant units.</p>
<b>Guidance information for assessment</b>	Assessment processes and techniques must be culturally appropriate and appropriate to the language and literacy

**EVIDENCE GUIDE**

capacity of the candidate and the work being performed.

## Range Statement

### RANGE STATEMENT

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

#### Procedures

All operations are performed in accordance with standard procedures and work instructions

#### Tools and equipment

Tools and equipment include:

- fibre handling equipment
- fibre/other refractory mixing equipment
- lifting and placing equipment
- equipment allowing access

#### Installation

Installation includes:

- correct thickness
- conforming to required curves and angles
- tying to structure
- keying/interfacing to existing refractory

#### Occupational health and safety (OHS)

All operations are subject to stringent OHS requirements and these must not be compromised at any time. Where there is an apparent conflict between performance criteria and OHS requirements, the OHS requirements take precedence

## Unit Sector(s)

### Unit sector

Operational/technical

## Competency field

Competency field	
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## Co-requisite units

Co-requisite units		