



**Australian Government**

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

# **CPCBC4006B Select, procure and store construction materials for low rise projects**

**Release: 1**

## **CPCBC4006B Select, procure and store construction materials for low rise projects**

### **Modification History**

Not Applicable

### **Unit Descriptor**

#### **Unit descriptor**

This unit of competency specifies the outcomes required to supervise the systems through which materials are typically selected, acquired and stored on site for projects described by the Building Code of Australia (BCA) as low rise building or construction work (low rise' licensing classification with reference to Class 1 and 10 construction and Class 2 to 9 with a gross floor area not exceeding 2000 square metres, not including Type A or Type B construction).

It ensures the delivery to the site of materials that meet contract specifications and service requirements for low rise projects.

### **Application of the Unit**

#### **Application of the unit**

This unit of competency supports builders, related construction industry professionals and managers within building and construction firms responsible for supervising and applying quality standards to the selection of construction materials. To achieve the outcomes for this unit, knowledge of relevant building construction materials and technologies, environmental effects on materials and evaluation procedures is required.

### **Licensing/Regulatory Information**

Refer to Unit Descriptor

## Pre-Requisites

**Prerequisite units** Nil

## Employability Skills Information

**Employability skills** This unit contains employability skills.

## Elements and Performance Criteria Pre-Content

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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.

## Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Identify and evaluate the properties of building materials.	1.1. Suitability of <i>materials</i> commonly used in the region for <i>low rise buildings</i> is identified for a given building system. 1.2. Properties of materials, their quality and the compatibility and non-compatibility of different materials are <i>identified</i> . 1.3. Environmental impacts of different materials are identified. 1.4. Impact of allowable tolerances on the conversion of naturally occurring materials is identified. 1.5. Tolerances for installing and assembling materials are identified and checked in regard to the nature of the work being performed and the requirements of relevant construction industry Australian standards.
2. Ensure suitable building materials are selected for application.	2.1. Materials that are structurally adequate and appropriate for the building system specified in the contract are <i>selected</i> . 2.2. Materials are selected for their safety; required fire resistance rating; suitability to the application, durability, serviceability and cost effectiveness; and compliance with Australian standards. 2.3. Short and long-term degradation of materials are considered in relation to the building's proposed life cycle. 2.4. Alternative materials are evaluated and selected if specified materials are unavailable or unsuitable. 2.5. Selection of materials for use is finalised in accordance with contractual requirements and in consultation with relevant professionals and the client.
3. Supervise the acceptance, safe handling and storage of materials on site.	3.1. Limitations and effects of transportation on materials and components are determined and action is taken in the case of potentially damaging circumstances. 3.2. <i>Materials are handled correctly and safely</i> on site using appropriate equipment and safe work practices. 3.3. Materials are stored in accordance with manufacturer specifications and in compliance with relevant Australian standards. 3.4. Processes are implemented for inspecting all materials delivered on site for naturally occurring and/or manufactured defects before installation. 3.5. Personnel are aware of actions to be taken in the case of defects caused by incorrect installation, application or placement.

**ELEMENT****PERFORMANCE CRITERIA**

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3.6. Timber is preserved and ferrous and non-ferrous metals used in the construction process are protected, using established methods.

## Required Skills and Knowledge

### REQUIRED SKILLS AND KNOWLEDGE

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

#### Required skills

Required skills for this unit are:

- analysis and report preparation
- application of safe work practices and materials handling
- apply numeracy skills to workplace requirements
- communication skills to:
  - enable clear and direct communication, using questioning to identify and confirm requirements, share information, listen and understand
  - communicate with manufacturers and suppliers of materials
  - provide advice and information to regulatory authorities
  - read and interpret:
    - contracts
    - drawings and specifications
  - use language and concepts appropriate to cultural differences
  - use and interpret non-verbal communication
- development and management of standardised processes
- supervision of small teams.

#### Required knowledge

Required knowledge for this unit is:

- alternative materials that can be specified in construction projects
- building and construction materials and technologies
- Building Code of Australia (Class 1 and 10 and Class 2 to 9 with a gross floor area not exceeding 2000 square metres, but not including Type A or Type B construction)
- construction supply processes
- construction and contracting equipment and its use
- environmental effects on various building and construction materials

## **REQUIRED SKILLS AND KNOWLEDGE**

- relevant state or territory building and construction codes, standards and regulations
- testing procedures for construction materials
- workplace safety requirements.

# Evidence Guide

## EVIDENCE GUIDE

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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.

### Overview of assessment

This unit of competency could be assessed by the effective supervision and application of quality standards to the identification, selection and storage of the range of relevant construction materials in the range statement.

This unit of competency can be assessed in the workplace or a close simulation of the workplace environment, provided that simulated or project-based assessment techniques fully replicate construction workplace conditions, materials, activities, responsibilities and procedures.

### Critical aspects for assessment and evidence required to demonstrate competency in this unit

A person who demonstrates competency in this unit must be able to provide evidence of the ability to:

- identify suitable building and construction materials specified by the project or contract
- use effective verbal and written communication with manufacturers and suppliers of materials
- effectively and efficiently test materials to maintain quality standards on site
- maintain effective sampling and record-keeping processes
- safely handle and store materials
- comply with organisational and legislative requirements.

### Context of and specific resources for assessment

This competency is to be assessed using standard and authorised work practices, safety requirements and environmental constraints.

Assessment of essential underpinning knowledge will usually be conducted in an off-site context.

Assessment is to comply with relevant regulatory or Australian standards' requirements.

Resource implications for assessment include:

- documentation that should normally be available in either a building or construction office

## EVIDENCE GUIDE

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- relevant codes, standards and regulations
- office equipment, including calculators, photocopiers and telephone systems
- computers with appropriate software to view 2-D CAD drawings, run costing programs and print copies
- a technical reference library with current publications on measurement, design, building construction and manufacturers' product literature
- a suitable work area appropriate to the construction process.

Reasonable adjustments for people with disabilities must be made to assessment processes where required. This could include access to modified equipment and other physical resources, and the provision of appropriate assessment support.

### Method of assessment

Assessment methods must:

- satisfy the endorsed Assessment Guidelines of the Construction, Plumbing and Services Training Package
- include direct observation of tasks in real or simulated work conditions, with questioning to confirm the ability to consistently identify and correctly interpret the essential underpinning knowledge required for practical application
- reinforce the integration of employability skills with workplace tasks and job roles
- confirm that competency is verified and able to be transferred to other circumstances and environments.

Validity and sufficiency of evidence requires that:

- competency will need to be demonstrated over a period of time reflecting the scope of the role and the practical requirements of the workplace
- where the assessment is part of a structured learning experience the evidence collected must relate to a number of performances assessed at different points in time and separated by further learning and practice, with



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a decision on competency only taken at the point when the assessor has complete confidence in the person's demonstrated ability and applied knowledge

- all assessment that is part of a structured learning experience must include a combination of direct, indirect and supplementary evidence.

Assessment processes and techniques should as far as is practical take into account the language, literacy and numeracy capacity of the candidate in relation to the competency being assessed. Supplementary evidence of competency may be obtained from relevant authenticated documentation from third parties, such as existing supervisors, team leaders or specialist training staff.

## Range Statement

### RANGE STATEMENT

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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.

***Materials*** commonly used in low rise buildings include:

- cements
- ceramics
- concrete
- engineered timber products
- flooring
- framing
- glass
- masonry units
- mortars
- paints and coatings
- plasterboard
- plasterglass
- roofing

## RANGE STATEMENT

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**Low rise buildings** are described within the BCA as:

- structural steel.
- Class 1 and 10
- Class 2 to 9 with a gross floor area not exceeding 2000 square metres, not including Type A or Type B construction.

Material suitability is **identified** by a range of processes, including:

- analysing reports, manufacturer specifications or other reference material regarding the suitability of new and environmentally efficient and sustainable building material technologies with reference to the BCA requirements
- arranging industry standard, external quality tests or inspections and provision of results as necessary
- arranging relevant, industry standard, on-site quality tests for products to be used in low rise buildings
- referencing external reports and manufacturer specifications
- refusing to accept substandard or out of specification materials
- seeking expert appraisal from relevant industry professionals, including architects, designers and engineers.

**Selected** includes:

- arranging for expert advice as necessary to confirm or refute material options
- identifying materials from specifications and drawings
- identifying specifications and standards described in contract documents
- selecting and ordering materials that meet those requirements.

**Materials are handled correctly and safely** by:

- allocation of space for on-site storage of materials
- confirming products or materials are as ordered and signing off delivery documentation
- ensuring safe unloading and handling of construction materials
- ensuring safe use of hazardous materials and complying with statutory or regulatory requirements
- ensuring correct materials are delivered to

## **RANGE STATEMENT**

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correct site

- providing adequate on-site security of materials
- undertaking quality checks within the competence of the individual.

## **Unit Sector(s)**

**Unit sector** Construction

## **Co-requisite units**

**Co-requisite units** Nil

## **Functional area**

**Functional area**