



Australian Government

CPCCB5004 Supervise and apply quality standards to the selection of building and construction materials

Release: 2

CPCBC5004 Supervise and apply quality standards to the selection of building and construction materials

Modification History

- Release 2 Updated reference to general construction induction training program.
- Release 1 This version first released with CPC Construction, Plumbing and Services Training Package Release 5.0.
- Supersedes and is equivalent to CPCBC5004A Supervise and apply quality standards to the selection of building and construction materials. Updated to meet the Standards for Training Packages 2012.

Application

This unit of competency specifies the skills and knowledge required to apply quality standards to the selection of building and construction materials. It includes supervising the selection of building materials that meet building standards, contract specifications and service requirements for the project.

This unit of competency applies to builders, related construction industry professionals and project managers within building and construction firms responsible for supervising systems through which compliant and quality materials are selected, acquired and stored on site for construction of building projects.

This unit of competency applies to those who are self-directed and have substantial depth of knowledge and skills to make independent judgements.

Completion of the general construction induction training program specified by the model Code of Practice for Construction Work is required for any person who is to carry out construction work. Achievement of *CPCWHS1001 Prepare to work safely in the construction industry* meets this requirement.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Building and Construction

Elements and Performance Criteria

Elements describe the essential outcomes.	Performance criteria describe what needs to be done to demonstrate achievement of the element.
1 Determine the properties of building materials.	1.1 Access, read and interpret construction specifications and material standards. 1.2 Identify suitability of materials commonly used in the region for a given building system. 1.3 Determine properties of materials, their standards of quality and their compatibility and non-compatibility with different materials. 1.4 Identify environmental impacts of different materials. 1.5 Determine the impact of allowable tolerances on the conversion of naturally occurring materials. 1.6 Identify and check tolerances for installing and assembling materials regarding the nature of the work being performed and the requirements of Australian Standards.
2 Select suitable building materials for application.	2.1 Select building materials regarding structural requirements and suitability for the building system specified in the contract. 2.2 Select materials for their safety, required fire resistance rating, serviceability and cost effectiveness. 2.3 Consider short and long-term degradation of materials in relation to the proposed life cycle of the building. 2.4 Select alternative materials if specified materials are unavailable or unsuitable. 2.5 Arrange for expert advice as necessary to confirm or refute materials options. 2.6 Apply evidence of suitability, as stated in the National Construction Code (NCC), for all building materials and products.
3 Supervise the	3.1 Identify and communicate organisational procedures for

acceptance, safe handling and storage of materials on site.		the acceptance, safe handling, storage and protection of materials on site.
	3.2	Instruct workers on the process to refuse acceptance of substandard or non-compliant materials.
	3.3	Determine limitations and effects of transportation on materials and components and take action in the case of potentially damaging circumstances.
	3.4	Handle materials correctly and safely on site using appropriate equipment and safe work practices.
	3.5	Store materials in accordance with manufacturer specifications and in compliance with the relevant standards.
	3.6	Implement systems for inspecting all materials delivered on site for naturally occurring and/or manufactured defects before installation.
	3.7	Ensure personnel are aware of actions to be taken in the case of defects caused by incorrect installation, application or placement.
	3.8	Preserve timber and protect ferrous and non-ferrous metals used in the construction process using established methods.
4 Supervise suitability and fit for purpose testing of materials.	4.1	Carry out testing of materials, including soil, filling, compacting, surfacing, concreting and welding, to specifications and analyse results on site before and during installation.
	4.2	Accurately identify samples of materials taken during placement or installation and send for laboratory testing.
	4.3	Visually check materials for suitability before building and send materials off site for testing, as required.
	4.4	Implement processes to ensure defective materials are identified and remedial action is recorded.
5 Establish, record and report findings.	5.1	Establish and maintain records of tests and testing procedures completed by the organisation in accordance with its quality management obligations.

- 5.2 Evaluate test results and reports periodically to maintain integrity of organisational quality standards.
- 5.3 Notify non-conforming on-site material tests immediately to the appropriate organisation officer for further action.

Foundation Skills

As well as the foundation skills explicit in the performance criteria of this unit, candidates require:

- communication skills to:
 - liaise verbally and/or in writing with manufactures, suppliers and industry experts and regulators about materials and effectively resolve material quality or compliance issues
 - communicate organisational procedures to workers
- technology skills to:
 - use digital tools and devices to communicate and collaborate effectively with others
 - use equipment and programs to access, extract information and develop relevant documentation.

Unit Mapping Information

Supersedes and is equivalent to CPCCBBC5004A Supervise and apply quality standards to the selection of building and construction materials.

Links

Companion volumes to this training package are available at the VETNet website -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=7e15fa6a-68b8-4097-b099-030a5569b1ad>

Assessment Requirements for CPCBC5004 Supervise and apply quality standards to the selection of building and construction materials

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Performance Evidence

To demonstrate competency, a candidate must meet the elements and performance criteria of this unit by applying quality standards to the selection of specified construction materials and supervising on-site processes for acquiring, receiving and storing materials for one building and construction project.

In doing this, the candidate must:

- identify and interpret building and construction materials specified in the project building specifications or contract documentation
- communicate effectively with manufacturers and suppliers to issue evidence of suitability for building materials and products
- supervise acceptance, handling and storage of materials
- confirm delivered material and products against delivery orders and compliance with project specifications
- conduct materials testing:
 - arranging external quality testing or inspections and receive results
 - arranging on-site quality and fit-for-purpose testing
 - taking remedial action for non-conforming test results
- provide advice and information to regulatory authorities as required by the organisation.

Knowledge Evidence

To be competent in this unit, a candidate must demonstrate knowledge of:

- determining and evaluating materials and products from project plans, specifications, codes and standards

- building and construction materials and technologies and alternative materials and products
- characteristics, applications and limitations of building material, products and components
- non-compliant building materials and products and the evidence of suitability requirements in the National Construction Code (NCC)
- environmental effects on building and construction materials
- construction supply processes
- processes for the selection of building materials:
 - identifying materials from specifications and drawings
 - identifying specifications and standards described in contract documents
 - selecting and ordering materials that meet those requirements
- maintaining records:
 - completing appropriate organisational records
 - distributing copies in accordance with organisational policy
 - following up reports that indicate departures from quality or manufacturing requirements
 - obtaining appropriate records and reports for review and analysis
- workplace safety:
 - hierarchy of control
 - hazardous manual handling tasks
 - safe use of mechanical lifting equipment
 - licensing and competency requirements to safely operate lifting equipment.

Assessment Conditions

Assessors must meet the requirements for assessors contained in the Standards for Registered Training Organisations.

Assessment can be undertaken in the workplace or in a simulated workplace environment.

A simulated environment is one that realistically replicates workplace conditions, materials and equipment, interactions with others and workplace irregularities, and which meets industry standards for safety and environmental practices.

Candidates must have access to:

- the NCC
- relevant and current project plans, specifications, codes, standards and regulations
- manufacturer's product and equipment specifications and information
- organisational policies, procedures and other quality documentation to undertake the performance criteria and assessment requirements
- technology, applications and software to access, extract and record information and develop relevant documentation.

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