



**Australian Government**

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

# **CPCCW2001A Handle waterproofing materials**

**Release: 1**

## CPCCWP2001A Handle waterproofing materials

### Modification History

Not Applicable

### Unit Descriptor

#### Unit descriptor

This unit of competency specifies the outcomes required to safely handle waterproofing materials manually and mechanically, including their storage requirements.

It includes the preparation, handling, sorting, stacking and disposal of waterproofing products, materials and components in the application of waterproofing systems, including the disposal of waste.

### Application of the Unit

#### Application of the unit

This unit of competency supports the attainment of skills and knowledge to handle waterproofing materials while working with others as a member of a team.

### Licensing/Regulatory Information

Not Applicable

### Pre-Requisites

#### Prerequisite units

CPCCOHS2001A

Apply OHS requirements, policies and procedures in the construction industry

## 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. Plan and prepare.	<p>1.1. Work instructions and operational details are obtained using relevant <b>information</b>, confirmed and applied for <b>planning and preparation</b> purposes.</p> <p>1.2. <b>Safety (OHS)</b> requirements are followed in accordance with safety plans and policies.</p> <p>1.3. Signage and barricade requirements are identified and implemented.</p> <p>1.4. <b>Tools and equipment</b> selected to carry out tasks are consistent with the requirements of the job, checked for serviceability and any faults are rectified or reported prior to commencement.</p> <p>1.5. Material quantity requirements are calculated in accordance with plans and specifications and <b>quality requirements</b>.</p> <p>1.6. <b>Materials</b> appropriate to the work application are identified, obtained, prepared, safely handled and located ready for use.</p> <p>1.7. <b>Environmental requirements</b> are identified for the project in accordance with environmental plans and regulatory obligations and applied.</p>
2. Manually handle waterproofing materials.	<p>2.1. <b>Materials</b> and components are identified and checked for conformity to material schedule, plans and specifications.</p> <p>2.2. Handling characteristics of <b>waterproofing materials</b> and components are identified and safe and effective handling techniques are applied.</p> <p>2.3. Waterproofing materials and components are <b>sorted</b>, stored/stacked and located for support of the job in accordance with supervisor's instructions and manufacturer specifications.</p> <p>2.4. Waterproofing materials and components are <b>protected</b> against physical damage and stored clear of trafficways.</p>
3. Prepare for mechanical handling of materials.	<p>3.1. Waterproofing materials and components are prepared and positioned for mechanical handling in accordance with type of material, plant and equipment to be used.</p> <p>3.2. Materials and components are loaded, unloaded, moved, located and/or installed in accordance with workplace procedures.</p> <p>3.3. Waterproofing materials and components are safely</p>

ELEMENT	PERFORMANCE CRITERIA
4. Handle and remove waste materials.	<p>handled with assistance of mechanical lifting devices/hoists in accordance with workplace requirements.</p> <p>4.1. Waste waterproofing materials and components are handled in accordance with material safety data sheets (MSDS) and regulatory requirements.</p> <p>4.2. Hazardous material is identified for separate handling.</p> <p>4.3. Non-toxic waste materials are removed and disposed of using appropriate procedures.</p> <p>4.4. <i>Dust suppression procedures</i> are used to minimise health risk to work personnel and others.</p>
5. Clean up.	<p>5.1. Work area is cleared and <i>waste materials</i> disposed of, reused or recycled in accordance with legislation, regulations, codes of practice and job specification.</p> <p>5.2. Plant, tools and equipment are cleaned, checked, maintained and stored in accordance with manufacturer recommendations and standard work practices.</p>

## 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:

- communication skills to:
  - follow instructions
  - read and interpret:
    - documentation from a variety of sources
    - drawings and specifications
  - recognise procedures
  - report faults
  - enable clear and direct communication, using questioning to identify and confirm requirements, share information, listen and understand
  - use language and concepts appropriate to cultural differences

## **REQUIRED SKILLS AND KNOWLEDGE**

- use and interpret non-verbal communication, such as hand signals
- written skills to record results of checks and tests and relevant work completion procedures
- evaluate own actions and make judgments about performance and necessary improvements
- identifying and accurately reporting to appropriate personnel any faults in tools, equipment or materials
- organisational skills, including the ability to plan and set out work
- respond to change and contribute to workplace responsibilities, such as current work site environmental and sustainability frameworks and management systems
- teamwork skills to work with others to action tasks and relate to people from a range of cultural and ethnic backgrounds and with varying physical and mental abilities
- technological skills to:
  - use a range of mobile technology, such as two-way radio and mobile phones
  - voice and hand signals to access and understand site-specific instructions.

## **Required knowledge**

Required knowledge for this unit is:

- communication processes - verbal and signalling
- general construction terminology
- job safety analysis (JSA) and safe work method statements
- MSDS and hazards associated with waterproofing materials
- materials storage and environmentally friendly waste management
- measurement and calculation
- plans, drawings and specifications
- processes for the calculation of material requirements
- quality requirements
- techniques of handling waterproofing materials
- waterproofing materials associated with application systems
- workplace and equipment 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 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:

- locate, interpret and apply relevant information, standards and specifications
- comply with site safety plan and OHS legislation, regulations and codes of practice applicable to workplace operations
- comply with organisational policies and procedures including quality requirements
- safely and effectively operate and use tools, plant and equipment
- communicate and work effectively and safely with others
- as a minimum, given the plans and specifications for the application of a waterproofing system (either internal, external, below ground or remedial):
  - confirm the adequacy and condition of the materials required to prepare for the application
  - safely and effectively manually and mechanically handle them before and during the application
  - dispose or recycle waste and surplus materials for the project.

### 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

## EVIDENCE GUIDE

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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:

- workplace location or simulated workplace
- materials relevant to the handling of the specific waterproofing applications
- hand and power tools, plant and equipment appropriate to the handling of waterproofing materials
- realistic tasks covering the mandatory task requirements
- specifications and work instructions.

Assessment of this unit of competency may be in conjunction with assessment of other units commonly performed at the same time in normal job roles.

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



## EVIDENCE GUIDE

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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 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. **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.

**Information** includes:

- diagrams or sketches
- instructions issued by authorised organisational or external personnel
- manufacturer specifications and instructions, where specified
- MSDS
- memos

## RANGE STATEMENT

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*Planning and preparation* include:

*Safety (OHS)* is to be in accordance with state and territory legislation and regulations and project safety plan and may include:

- regulatory and legislative requirements pertaining to handling waterproofing materials
- relevant Australian standards
- safe work procedures relating to handling waterproof materials
- signage
- verbal, written and graphical instructions
- work bulletins
- work schedules, plans and specifications.
- assessment of conditions and hazards
- determination of work requirements and safety plans and policies
- equipment defect identification
- work site inspection.
- emergency procedures, including extinguishing fires, organisational first aid requirements and evacuation
- handling activities that may require the assistance of others or the use of manual or mechanical lifting devices where size, weight or other issues, such as a disability are a factor
- hazard control
- hazardous materials and substances, including cement and curing agents
- organisational first aid
- PPE prescribed under legislation, regulations and workplace policies and practices
- safe operating procedures, including the conduct of operational risk assessment and treatments associated with:
  - earth leakage boxes
  - lighting
  - power cables, including overhead service trays, cables and conduits
  - restricted access barriers
  - surrounding structures
  - traffic control
  - trip hazards
  - work site visitors and the public
  - working at heights
  - working in confined spaces

## RANGE STATEMENT

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*Tools and equipment* required for the handling of waterproofing material is dependent on the waterproofing system being applied and may include:

- working in proximity to others
- use of firefighting equipment
- use of tools and equipment
- workplace environmental requirements and safety.
- angle grinders
- brooms
- brushes
- buckets
- caulking guns
- chisels, including cold chisels
- cutting blades
- dumpy, laser and water levels
- electric drills and screwdrivers
- electric hammers
- extension leads
- fusion rollers
- gas burners and torches
- hammers
- hoses
- measuring tapes and rules
- mixers and mixing apparatus
- moisture meters
- nylon rollers
- plant, including:
  - excavating equipment
  - heat welders
  - high pressure water equipment
  - hot air welders
  - impact drills
  - pumps
- pressure injection equipment, including:
  - cartridge applications
  - compressors
  - pumps
  - vacuum pumps
- pressure rollers
- scissors
- seam probes
- solvent applicators

## RANGE STATEMENT

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- spirit levels
  - straight edges
  - trowels
  - vacuum cleaners
  - wood floats.
- Quality requirements** include relevant regulations, including:
- Australian standards
  - internal company quality policy and standards
  - manufacturer specifications
  - workplace operations and procedures.
- Environmental requirements** include:
- clean-up management
  - dust and noise
  - stormwater management
  - vibration
  - waste management.
- Materials** include:
- cement-based waterproofing systems
  - hot mix bituminous felt material membranes
  - injected materials
  - liquid sealants or sealant devices
  - sheet and sprayed material membranes.
- Waterproofing materials** required to prepare for waterproofing are dependent upon the system of waterproofing being applied and include:
- waterproofing material or membrane for the application which may be:
    - drainage cells
    - geotech fabric
    - liquid applied, including:
      - acrylic
      - cementitious-based
      - injection
      - polyurethane
    - primers and adhesives
    - protection boards
    - sheet:
      - bentonite composites
      - butanol
      - ethylene cop bitumen (ECB)
      - ethylene propylene diene monomer rubber (EPDM)
      - polyvinyl chloride (PVC).
- Sorting** of materials:
- may be according to:
    - ease of identification

## RANGE STATEMENT

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- job allocation
  - material type and size
  - task sequence
  - may be applied:
    - for external and below ground level wet areas
    - for internal waterproofing
    - to prepare substrate for waterproofing installation
    - to remedy waterproofing techniques.
- Stored/stacked materials are *protected* by:
- barricading
  - covering
  - secured (hazardous materials)
  - signage
  - tying and banding.
- Dust suppression procedures* include:
- covering
  - spraying with water
  - use of vacuum cleaner.
- Waste materials* include:
- banding straps
  - broken or damaged materials and components
  - cardboard
  - loose material
  - packing pieces
  - paper
  - plastic.

## Unit Sector(s)

Unit sector                      Construction

## Co-requisite units

Co-requisite units

Nil

## **Co-requisite units**

## **Functional area**

### **Functional area**