



**Australian Government**

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

# **CPCWP2002A Use waterproofing tools and equipment**

**Release: 1**

## CPCCW2002A Use waterproofing tools and equipment

### Modification History

Not Applicable

### Unit Descriptor

#### Unit descriptor

This unit of competency specifies the outcomes required to safely and effectively use tools and equipment used in waterproofing.

It includes identification, selection and use of hand and power tools, plant and equipment used in masonry work.

### Application of the Unit

#### Application of the unit

This unit of competency supports the attainment of skills and knowledge to use waterproofing tools and equipment 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. Prepare for work.	1.1. Work instructions and operational details are obtained using relevant <i>information</i> , confirmed and applied for <i>planning and preparation</i> purposes. 1.2. <i>Safety (OHS)</i> requirements are followed in accordance with safety plans and policies. 1.3. Signage and barricade requirements are identified and implemented. 1.4. Material quantity requirements are calculated in accordance with plans and specifications and <i>quality requirements</i> . 1.5. <i>Environmental requirements</i> are identified for the project in accordance with environmental plans and regulatory obligations and applied.
2. Identify hand and power tools.	2.1. Types and functions of hand and power tools to be used in the waterproofing work are identified. 2.2. Methods of operation of hand and power tools are identified from specifications, standards and manufacturers' instructions. 2.3. Specific OHS requirements for specific hand and power tools are identified and applied. 2.4. Personal protective equipment (PPE) required for operation of the tools is identified in accordance with regulatory and workplace requirements.
3. Select tools for work.	3.1. <i>Tools and equipment</i> are selected consistent with job requirements. 3.2. Tools, including leads and hoses, are checked for tags, serviceability and safety and any faults are reported to supervisor. 3.3. Power tools guards, guides and controls are checked and maintained in accordance with manufacturer recommendations. 3.4. Equipment to hold or support material during operation is selected and inspected for faults. 3.5. Pre-operational checks, including lubricants, hydraulic fluid and water, are completed in accordance with manufacturer recommendations.
4. Use tools.	4.1. Power and compressed air supply to work area are connected to the area of work in accordance with regulatory and workplace requirements and codes of practice.

ELEMENT	PERFORMANCE CRITERIA
	<p>4.2. Start-up and shut-down procedures are observed.</p> <p>4.3. Tools are used safely and effectively according to manufacturer recommendations and regulatory requirements.</p> <p>4.4. Tools are safely switched off and located when not in use.</p>
<p>5. Identify and select plant and equipment.</p>	<p>5.1. Function and limitations of waterproofing hand and power tools, plant and equipment used for waterproofing systems and waterproofing tasks are identified.</p> <p>5.2. Method of operation of plant and equipment is identified from specifications, standards and manufacturers' instructions.</p> <p>5.3. OHS requirements for specific plant and equipment, including requirements for guarding, guiding and controls, are identified and applied.</p> <p>5.4. PPE required for the operation of plant and equipment is identified in accordance with regulatory and workplace requirements.</p> <p>5.5. Items of plant and equipment are selected consistent with hazard minimisation and needs of the job.</p> <p>5.6. Plant and equipment are checked for safety, and faults are reported to supervisor in accordance with workplace procedures.</p> <p>5.7. OHS requirements for operating and using plant and equipment are recognised and adhered to.</p>
<p>6. Use plant and equipment.</p>	<p>6.1. Start-up and shut-down procedures are observed.</p> <p>6.2. Plant and equipment are used safely and effectively according to manufacturer recommendations and regulatory requirements.</p> <p>6.3. Plant and equipment are safely switched off and located when not in use.</p>
<p>7. Clean up.</p>	<p>7.1. Work area is cleared and materials disposed of, reused or recycled in accordance with legislation, regulations, codes of practice and job specification.</p> <p>7.2. 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
  - 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:

- applications, limitations and method of operation and maintenance of hand and power tools, plant and equipment applicable to waterproofing tasks
- communication processes - verbal and signalling
- general construction terminology
- job safety analysis (JSA) and safe work method statements

**REQUIRED SKILLS AND KNOWLEDGE**

- material safety data sheets (MSDS) and hazards associated with the use of waterproofing tools, plant and equipment
- materials storage and environmentally friendly waste management
- measurement and calculation
- plans, drawings and specifications
- quality requirements
- 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, follow work instructions and operating procedures to safely and effectively use appropriate tools, plant and equipment for the preparation of the substrate for waterproofing and the application of at least one of the following applications:
  - an internal wet area
  - an external wet area
  - a below ground level wet area
  - a remedial waterproofing project
- ensuring:
  - correct selection and use of appropriate processes, tools and equipment
  - no damage to tools, plant and equipment
  - completing all work to specification
  - compliance with regulations, standards and



## EVIDENCE GUIDE

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### Context of and specific resources for assessment

organisational quality procedures and processes.

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:

- workplace location or simulated workplace
- hand and power tools, plant and equipment appropriate to waterproofing tasks
- 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.

## EVIDENCE GUIDE

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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 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.

***Information*** includes:

- diagrams or sketches
- instructions issued by authorised

## 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:

- organisational or external personnel
- manufacturer specifications and instructions, where specified
- MSDS
- memos
- regulatory and legislative requirements pertaining to the use of waterproofing hand and power tools, plant and equipment
- relevant Australian standards
- safe work procedures relating to the use of waterproofing hand and power tools, plant and equipment
- 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

## RANGE STATEMENT

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- surrounding structures
  - traffic control
  - trip hazards
  - work site visitors and the public
  - working at heights
  - working in confined spaces
  - working in proximity to others
  - use of firefighting equipment
  - use of tools and equipment
  - workplace environmental requirements and safety.
- 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.
- Tools and equipment*** required for waterproofing tasks are dependent on the waterproofing system being applied and include:
- 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:

## RANGE STATEMENT

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- high pressure water equipment
- excavating equipment
- pumps
- heat welders
- hot air welders
- impact drills
- pressure injection equipment
- pumps
- compressors
- cartridge applications
- vacuum pumps
- pressure rollers
- scissors
- seam probes
- solvent applicators
- spirit levels
- straight edges
- trowels
- vacuum cleaners
- wood floats.
- for waterproofing internal, external and below ground level wet areas
- to apply remedy waterproofing techniques.
- cement-based waterproofing systems
- hot mix bituminous felt material membranes
- injected materials
- liquid sealants or sealant devices
- sheet and sprayed material membranes.
- a new construction site
- an existing structure being renovated or extended
- an existing structure subject to service restoration or maintenance.

***Hand and power tools, plant and equipment*** include that required:

***Waterproofing systems*** include:

***Waterproofing tasks*** may be performed on:

## Unit Sector(s)

**Unit sector**                      Construction

## **Co-requisite units**

**Co-requisite units** Nil

## **Functional area**

**Functional area**