



Australian Government

CPCCW3001 Apply waterproofing system to below ground level wet areas

Release: 3

CPCCWP3001 Apply waterproofing system to below ground level wet areas

Modification History

- Release 3 Updated reference to general construction induction training program.
- Release 2 This version first released with CPC Construction, Plumbing and Services Training Package Release 5.1.
Knowledge Evidence formatted for clarity. Change to Unit Sector.
- Release 1 This version first released with CPC Construction, Plumbing and Services Training Package Release 5.0.
Supersedes and equivalent to CPCCWP3001A Apply waterproofing process to below ground level wet areas. Updated to meet the Standards for Training Packages 2012.

Application

This unit specifies the skills and knowledge required to apply waterproofing system to wet areas below ground level, meeting all relevant requirements of Australian Standards, work health and safety (WHS), and Commonwealth and state or territory legislation.

It includes identification of the appropriate waterproofing system to be used, its preparation and its application.

A person working at this level would be expected to take responsibility for organising and completing tasks assigned to them without close supervision.

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

CPCCWHS2001 Apply WHS requirements, policies and procedures in the construction industry

Unit Sector

Construction waterproofing

Elements and Performance Criteria

Elements describe the essential outcomes.

Performance criteria describe what needs to be done to demonstrate achievement of the element.

- | | |
|---|---|
| 1 Plan and prepare to apply waterproofing system to below ground level wet areas. | 1.1 Read and interpret work instructions and plan sequence of work.
1.2 Select and use personal protective equipment (PPE) as required for each stage of the task.
1.3 Plan all work to comply with laws and regulations, Australian Standards, work health and safety (WHS) and environmental requirements, manufacturers' specifications, workplace requirements, drawings and specifications.
1.4 Follow requirements of job safety analyses and safety data sheets.
1.5 Inspect work site, assess hazards and apply risk controls, including required signage and barricades.
1.6 Check for and report substrate and/or surface defects.
1.7 Select tools and equipment, check for serviceability and report any faults.
1.8 Select materials required for task, calculate quantities, handle safely and prepare and position ready for use. |
| 2 Select waterproofing system. | 2.1 Identify below-ground structure to be waterproofed from drawings and specifications.
2.2 Select compatible waterproofing systems suitable for site conditions and substrate. |
| 3 Prepare for waterproofing installation. | 3.1 Confirm site access for safety and adequacy for installation.
3.2 Set out below-ground wet area site, and check alignment and finished levels for conformity with drawings and specifications.
3.3 Test moisture content in substrate for compatibility with system and report defects. |

- 3.4 Prepare detailing and terminations and make ready for installation of system.
 - 3.5 Check that substrate has uniform finish.
 - 3.6 Clean and prepare substrate ready for waterproofing.
- 4 Apply waterproofing.
 - 4.1 Apply waterproofing system to prepared surface to manufacturers' specifications.
 - 4.2 Detail and terminate waterproofing membrane in accordance with system requirements.
 - 4.3 Check completed below-ground waterproofing installation for conformity to manufacturers' specifications.
 - 4.4 Document movement joints for subsequent trades.
 - 4.5 Perform final inspection and completion activities.
 - 4.6 Protect waterproofing membrane.
- 5 Apply sealants to construction joints.
 - 5.1 Select sealant for compatibility with application, substrate and finishes.
 - 5.2 Install backing rods and/or release agents to prevent three-sided adhesion.
 - 5.3 Apply sealant manufacturers' specifications, tool to required finish and allow to cure.
 - 5.4 Perform final inspection and completion activities.
 - 5.5 Protect sealant, in accordance with manufacturers' specifications
- 6 Clean up.
 - 6.1 Clear work area, dispose of materials, and reuse or recycle in compliance with legislation, regulations and codes of practice.
 - 6.2 Clean, check, maintain and store tools and equipment in accordance with manufacturers' recommendations.

Foundation Skills

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

Unit Mapping Information

Supersedes and equivalent to CPCCWP3001A Apply waterproofing process to below ground level wet areas.

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 CPCCWP3001 Apply waterproofing system to below ground level wet areas

Modification History

- Release 3 Updated reference to general construction induction training program.
- Release 2 This version first released with CPC Construction, Plumbing and Services Training Package Release 5.1.
Knowledge Evidence formatted for clarity. Change to Unit Sector.
- Release 1 This version first released with CPC Construction, Plumbing and Services Training Package Release 5.0.
Supersedes and equivalent to CPCCWP3001A Apply waterproofing process to below ground level wet areas. Updated to meet the Standards for Training Packages 2012.

Performance Evidence

To demonstrate competency, a candidate must satisfy all of the elements, performance criteria and foundation skills of this unit by applying waterproofing to below-ground wet areas, including:

- a liquid system to waterproof:
 - covering a minimum of two square metres of a masonry wall
 - with a strip or toe footing, including terminations
 - including at least one penetration and a wall-to-wall junction
- a sheet system to waterproof:
 - covering a minimum of two square metres of a masonry wall
 - with a strip or toe footing, including terminations
 - including at least one penetration and a wall-to-wall junction.

In doing this, the candidate must apply protection of the waterproofing.

All work must be performed to the standard required in the workplace and must comply with laws and regulations, Australian Standards, work health and safety (WHS) and environmental requirements, manufacturers' specifications and workplace requirements.

Knowledge Evidence

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

- requirements of Australian Standards for waterproofing below-ground wet areas
- safety requirements for waterproofing below-ground wet areas, including:

- job safety analyses and/or safe work method statements in accordance with Safe Work Australia *Code of Practice for Construction Work* or state and/or territory equivalent
- safety data sheets (SDS)
- personal protective equipment (PPE)
- manufacturers' specifications for waterproofing systems and materials
- below-ground waterproofing materials, processes and techniques:
 - external and internal vertical walls constructed below ground level
 - under slab waterproofing barriers
 - foundation work
 - lift pits
 - retaining walls
- underground residential and commercial spaces:
 - basements
 - car parks
 - storage areas
- characteristics and applications of waterproofing materials:
 - liquid:
 - bituminous
 - cementitious-based
 - injection
 - polyurethane
 - sheet:
 - bentonite composites
 - butyl
 - modified bitumen sheet
 - ethylene propylene diene monomer rubber (EPDM)
 - polyvinyl chloride (PVC)
 - waterproofing materials:
 - geotech fabric
 - protection board
 - substrate primer
 - water stops
- waterproofing considerations in construction systems:
 - compatibility of systems
 - UV stability at above ground transition
 - causes of water penetration:
 - leakage through wall and floor finishes
 - penetration at joints and junctions
 - movement from shrinkage
 - accumulated drainage

- failure of or damage to waterproofing system
- corners and terminations
- curing times of compounds and their applications
- damp-proof courses and flashings
- hydrostatic pressure
- impact of environmental conditions
- joining
- perimeter treatment:
 - pressure seals cross cavity and over flashing
 - thermal shrinkage (expansion and contraction)
- shelf life of waterproofing products
- surface applications and protection requirements
- use of bond-breakers
- use of sealants
- waste allowances
- materials storage and environmentally friendly waste management
- types and uses of plans, drawings and specifications for waterproofing below-ground wet areas
- types and uses of tools and equipment for waterproofing below-ground wet areas
- drainage and protection systems
- types and uses of materials used for below ground application
- principles and considerations of water exclusion:
 - positive
 - negative
 - blind-side membrane
- quality requirements for waterproofing below-ground wet areas
- termination and detailing for waterproofing below-ground wet areas.

Assessment Conditions

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

This unit must be assessed in the workplace or a close simulation using realistic workplace conditions, materials, activities, responsibilities, procedures, safety requirements and environmental considerations.

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>