



Australian Government

CPCCCO3050 Carry out high performance concreting

Release: 1

CPCCCO3050 Carry out high performance concreting

Modification History

Release 1.

Supersedes and equivalent to CPCCCO3050A Carry out high performance concreting.

The unit of competency was updated to the Standards for Training Packages 2012.

This version first released with CPC Construction, Plumbing and Services Training Package Version 4.0.

Application

This unit of competency specifies the skills and knowledge required to plan, prepare and place high performance concrete onto structures requiring high strength attributes and durability.

It includes concrete work on structures including bridges, airport runways, dams, cooling towers, foundation supports for high-rise facilities, roadways and tunnels.

It applies to concreters working as members of a team with at least a moderate degree of autonomy. They would be expected to complete routine activities without close supervision.

Licensing, legislative, regulatory or certification requirements apply to this unit of competency in all states and territories except Tasmania. Relevant state and territory regulatory authorities should be consulted to confirm these requirements.

Pre-requisite Unit

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

Unit Sector

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. Plan and prepare to carry out high performance concreting.	1.1 Review and clarify task to carry out high performance concreting. 1.2 Review task specifications and check to make sure they are in accordance with legislation, regulations and codes of practice. 1.3 Review work health and safety (WHS) requirements for the task in accordance with safety plans and policies.

	1.4 Identify safety signage and barricade requirements. 1.5 Review environmental requirements for the task in accordance with environmental plans and legislative requirements. 1.6 Select plant, tools and equipment, check for serviceability and rectify or report any faults. 1.7 Calculate material quantity requirements. 1.8 Acquire materials for the task and locate them safely ready for use.
2. Place, finish and cure high performance concrete.	2.1 Erect identified safety signage and barricades, and fit personal protective equipment (PPE). 2.2 Carry out tests for each property of high performance concrete in accordance with specifications and associated testing standards. 2.3 Use appropriate mechanical or manual handling techniques and processes to discharge high performance concrete into formwork. 2.4 Use technique nominated in specifications to ensure high performance concrete is placed in a timely manner to avoid material segregation. 2.5 Compact or vibrate high performance concrete and screed to job specifications into designated formwork in accordance with specifications and supporting drawings. 2.6 Finish high performance concrete to specified thickness and height. 2.7 Apply and document high performance concrete curing regime in accordance with specifications, which may include a selection of curing methods. 2.8 Protect concrete from damage and pollution during construction using a plastic membrane.
3. Clean up after carrying out high performance concreting.	3.1 Clear work area and dispose of, re-use or recycle materials in accordance with legislation, regulations, codes of practice and task requirements. 3.2 Clean, check, maintain and store tools and equipment in accordance with manufacturers' specifications and workplace requirements.

Foundation Skills

This section describes the language, literacy, numeracy and employment skills essential to performance in this unit but not explicit in the performance criteria.

- oral communication skills to:
 - use questioning to identify and confirm requirements
 - discuss cause of problems
 - report work site hazards, including faults in tools, equipment and materials
 - provide feedback.

Unit Mapping Information

Supersedes and is equivalent to CPCCCO3050A Carry out high performance concreting.

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 CPCCCO3050 Carry out high performance concreting

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Performance Evidence

To demonstrate competency in this unit, a person must place, finish and cure 10 square metres of high performance concrete.

In doing this, the person must meet the performance criteria for this unit.

Knowledge Evidence

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

- jurisdictional work health and safety (WHS) and environmental legislation and regulations relating to carrying out high performance concreting, including:
 - job safety analyses (JSAs)
 - safe work method statements (SWMSs)
 - safety data sheets (SDSs)
 - safety manuals and instructions for plant, tools and equipment
 - signage and barricades
 - personal protective equipment (PPE)
 - environmental and work site safety plans
- requirements of Australian Standards and the National Construction Code (NCC) relating to carrying out high performance concreting
- workplace requirements for all aspects of carrying out high performance concreting, including interpreting work orders and reporting problems
- types, characteristics, uses and limitations of tools, equipment and materials required for carrying out high performance concreting, including:
 - safe operating procedures
 - operational, maintenance and basic diagnostic procedures
 - workplace and equipment safety requirements
- techniques for carrying out high performance concreting using a range of MPa, including 100 MPa
- quality requirements relevant to carrying out high performance concreting

- processes, materials and equipment for carrying out high performance concreting
- application of high performance concreting
- requirements for cleaning up of work area and tools, materials storage and environmentally friendly waste management.

Assessment Conditions

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

Assessment of performance must be undertaken in the workplace or in a simulated workplace environment. Tasks are to be performed to the level of proficiency and within the time limits expected in a workplace.

Assessors are responsible for ensuring that the person demonstrating competency has access to:

- work sites and specifications for carrying out high performance concreting
- appropriate documents, materials, tools, equipment and PPE currently used in industry
- requirements of appropriate sections of legislation and regulations
- relevant workplace policies and procedures.

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