



**Australian Government**

# **CPCCCO3044A Carry out decorative finishes to concrete**

**Release 1**

## **CPCCCO3044A Carry out decorative finishes to concrete**

### **Modification History**

This version first released with CPC08 Construction, Plumbing and Services Training Package Version 9.

- Changes to elements and performance criteria, required skills and knowledge, range statement, critical aspects for assessment, and methods of assessment
- Range of other minor editorial changes

Not equivalent to CPCCCO3024A Carry out decorative finishes to concrete

### **Unit Descriptor**

This unit of competency specifies the outcomes required to apply decorative finishes to concrete surfaces. The finish includes the use of stamps, stencils, colours, exposed aggregate and textured finishes. It may include working with others and as a member of a team.

### **Application of the Unit**

This unit of competency supports the attainment of the understanding and skills to provide a distinct featured face finish for driveways, patios, paths or other areas requiring a decorative finish.

### **Licensing/Regulatory Information**

Licensing, legislative, regulatory or certification requirements apply to concreting work in different states and territories. Candidates are advised to consult with the relevant regulatory authorities.

### **Pre-Requisites**

CPCCOHS2001A	Apply OHS requirements, policies and procedures in the construction industry
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### **Employability Skills Information**

This unit contains employability skills.

## Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.

Performance criteria describe the required performance needed to demonstrate achievement of the element. Where ***bold italicised*** text is used, further information is detailed in the required skills and knowledge and/or the range statement. Assessment of performance is to be consistent with the evidence guide.

## Elements and Performance Criteria

- |   |  |  |
|---|--|--|
| 1 | Plan and prepare.  | <p>1.1 Work instructions, <b><i>work health and safety (WHS) requirements</i></b> and other <b><i>information</i></b> relevant to the work are identified, confirmed and applied for <b><i>planning and preparation</i></b> purposes.</p> <p>1.2 Plant, <b><i>tools and equipment</i></b> consistent with job requirements are selected and checked for serviceability, and faults are rectified and reported before work begins.</p> <p>1.3 Material quantity requirements are identified and calculated according to plans, specifications and <b><i>quality requirements</i></b>.</p> <p>1.4 <b><i>Materials</i></b> appropriate to the work application are obtained, prepared, safely handled and located ready for use.</p> <p>1.5 <b><i>Environmental requirements</i></b> are identified for the project according to environmental plans and regulatory requirements.</p> |
| 2 | Carry out stencil finishes with dry topping on wet concrete. | <p>2.1 <b><i>Stencil finish</i></b> is prepared so that any lapping maintains alignment and bond.</p> <p>2.2 Stencil is laid on to screeded surface to specifications ensuring alignment, bond and flat.</p> <p>2.3 Dry topping mix of colour, stone dust and cement is prepared and applied to specifications.</p> <p>2.4 Surface is finished with wood or magnesium float or steel trowel to a consistent texture according to</p>   |

- specifications.
- 2.5 Stencil is lifted according to setting time in manufacturer recommendations.
- 2.6 **Control joints** are inserted to specifications during placement and/or cut into applied finish after setting.
- 3 Carry out stencil finishes with wet topping mix on dry concrete.
- 3.1 Existing concrete surface is cleaned of loose particles and debris.
- 3.2 **Stencil finish** is prepared so that any lapping maintains alignment and bond.
- 3.3 Stencil is laid carefully on to dry surface according to specifications ensuring alignment, bond and flat.
- 3.4 Powdered mix is mixed consistently according to manufacturer specifications, loaded into hopper gun while wet, and sprayed under pressure on to dry stencil surface.
- 3.5 Stencil is lifted according to setting time in manufacturer recommendations.
- 4 Carry out stamp finishes.
- 4.1 Method of applying pattern is determined according to designed finish and specifications.
- 4.2 **Stamped finish** pattern equipment is checked for cleanliness and serviceability.
- 4.3 Design layout is planned and initial starting point determined to specifications and design.
- 4.4 Base colour and topping dust are prepared and applied to wet concrete according to specifications.
- 4.5 Colours are applied as specified at random locations to create desired effect.
- 4.6 **Release agent** is prepared and applied to specifications.
- 4.7 Stamp is used to create designed pattern and surface effect according to specifications.
- 4.8 Control joints are inserted during placement and/or cut into applied finish after setting, according to

- specifications.
- 4.9 Concrete is cleaned of release agent and other debris and an appropriate sealant is applied according to job specifications.
- 5 Carry out exposed aggregate finishes.
- 5.1 Selected aggregates are incorporated into concrete mix to specifications.
- 5.2 Concrete is laid to ensure exposed stone is uniform.
- 5.3 Surface matrix is removed to expose aggregate.
- 5.4 Chemical retardant is applied to surface to allow ease of matrix removal and exposure of aggregate.
- 5.5 ***Exposed aggregate*** is left clean and free to designed effect and specifications.
- 5.6 Control joints are inserted during placement and/or cut into applied finish after setting, according to specifications.
- 5.7 Sealant is applied to surface according to manufacturer specifications.
- 6 Carry out textured finishes.
- 6.1 Method of applying ***texture*** is determined according to designed finish and specifications.
- 6.2 Topping dust is prepared and applied according to specifications.
- 6.3 Base colour is floated into surface according to specifications.
- 6.4 Colours are randomly applied, where specified, on to surface to create decorative type colourings.
- 6.5 Finish is applied with trowel or other tools to create designed pattern and surface effect according to specifications.
- 6.6 Control joints are inserted during placement and/or cut into applied finish after setting, according to specifications.

- 7      Clean up.
  - 7.1    Work area is cleared and materials disposed of, reused or recycled according to regulations, codes of practice and job specification.
  - 7.2    Plant, tools and equipment are cleaned, checked, maintained and stored according to manufacturer recommendations and standard work practices.

## Required Skills and Knowledge

This section describes the skills and knowledge required for this unit.

### Required skills

- learning skills to:
  - evaluate own actions and make judgments about performance and necessary improvements
  - respond to change, such as differences in work site, and environmental and quality requirements
- numeracy skills to calculate and confirm correct quantities of materials for work tasks
- oral communication skills to:
  - enable clear and direct communication, using questioning to identify and confirm requirements, and share information
  - report work site hazards to appropriate personnel, including faults in tools, equipment or materials
  - use language and concepts appropriate to cultural differences
- reading skills to:
  - interpret documentation, including drawings and specifications
  - understand written instructions, procedures and signage
  - interpret manufacturer instructions for safely handling tools and equipment
- writing skills to complete pre-operational checklists and equipment fault forms

### Required knowledge

- application and methods of applying control joints
- principles and practices relating to carrying out decorative finishes to concrete:
  - concrete decorative finishing techniques
  - decorative concrete finishing materials
- types, location and use of relevant safety information:
  - job safety analyses (JSA) and safe work method statements (SWMS)
  - safety data sheets (SDS)
  - safety manuals and instructions for plant, tools and equipment
  - signage
  - environmental and work site safety plans
- processes for material storage and environmentally friendly waste management
- processes for calculating material requirements
- types, characteristics, uses and limitations of plant, tools and equipment used to provide decorative finishes to concrete
- workplace and equipment safety requirements

## Evidence Guide

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 by undertaking a range of tasks under observation 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 should demonstrate the ability to:

- complete decorative finishes to a minimum of 20 square metres of concrete, using three out of the following five decorative techniques:
  - exposed aggregate finish
  - stamp finish
  - stencil finish with dry topping on wet concrete
  - stencil finish with wet topping mix on dry concrete
  - textured finish specified in range statement to job specifications
- locate, interpret and apply relevant information to achieve desired decorative finishes, including:
  - job specifications
  - manufacturer requirements relating to materials and use of tools
- comply with site safety plans and procedures
- comply with organisational policies and procedures relating to carrying out decorative finishes to concrete while maintaining quality requirements outlined in job specifications
- safely and effectively operate and use plant, tools and equipment required to carry out decorative concreting
- communicate and work effectively and safely with others.

**Context of and specific resources for assessment**

Assessment of this unit:

- must be in the context of the work environment
- may be conducted in an off-site context, provided it is realistic and sufficiently rigorous to cover all aspects of workplace performance, including task skills, task management skills, contingency management skills and job role environment skills
- must meet relevant compliance requirements.



Resource implications for assessment include:

- an induction procedure
- realistic tasks or simulated tasks covering the mandatory task requirements
- relevant specifications and work instructions
- tools and equipment appropriate to applying safe work practices
- support materials appropriate to activity
- workplace instructions relating to safe work practices and addressing hazards and emergencies
- safety data sheets.

### Method of assessment

Assessment for this unit must verify the practical application of the required skills and knowledge, using a combination of the following methods:

- direct observation of tasks in real or simulated work conditions
- questioning to confirm the ability to consistently identify and correctly interpret the essential underpinning knowledge required for practical application
- review of relevant authenticated documentation from third parties, such as existing supervisors, team leaders or specialist training staff.

### Guidance information for assessment

This unit could be assessed on its own or in combination with other units relevant to the job function.

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.

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.

## Range Statement

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.

### Work health and safety

- assistance of others or the use of manual or mechanical lifting

**requirements** must comply with state and territory legislation and regulations and project safety plan, and may include:

- devices with handling activities where size, weight or other issues, such as disability, are a factor
- emergency procedures, including extinguishing fires, organisational first aid requirements, and evacuation procedures
- hazard control
- hazardous materials and substances
- personal protective equipment (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
  - working in proximity to others
- use of firefighting equipment
- use of tools and equipment
- workplace environmental requirements and safety.
- instructions issued by authorised organisational and external personnel
- memos
- regulatory and legislative requirements relating to decorative concreting
- Australian standards relating to decorative concreting
- safe work procedures relating to decorative concreting
- safety data sheets
- signage
- verbal, written and diagrammatic instructions, including manufacturer specifications and instructions where specified
- work bulletins
- work schedules, plans and specifications.
- assessing conditions and hazards
- determining work requirements and safety plans and policies
- identifying and rectifying equipment defects

**Information** may include:

**Planning and preparation** must include:

- Tools and equipment:***
- inspecting work sites.
  - must include:
    - floats
    - hand tools
    - hoses
    - shovels
    - trowels
  - may include:
    - brooms
    - power trowels
    - rollers
    - spray attachments
    - spray bottles
    - stamps
    - stipple devices
    - wheelbarrows.
- Quality requirements*** must include:
- internal organisational quality policy and standards
  - manufacturer specifications where specified
  - relevant regulations and Australian standards
  - workplace operations and procedures.
- Materials*** may include:
- colourants
  - mortar additives
  - release agents
  - river gravel aggregates
  - sealants
  - stencils.
- Environmental requirements*** may include:
- clean-up management
  - dust and noise control
  - vibration management
  - waste management.
- Stencil finishes:***
- can be applied with a decorative designed pre-prepared cut roll of material specified to customer requirements
  - can be floated into the surface of the concrete
  - involve the application of colour.
- Control joints:***
- are cut using:
    - hand held power saw
    - walk behind power saw
  - are included in the concrete surface to control cracking according to engineer's drawings and specifications.
- Form ***release agents*** must
- release agent powder.

include:

*Textured* finishes may  
include:

- application of colour
- polished finish
- rough textured finish (non-slip) applied with a trowel
- stipple device.

## **Unit Sector(s)**

Concreting

## **Custom Content Section**

Not applicable.