



Australian Government

CPCCON3046 Repair and rectify concrete

Release: 2

CPCCON3046 Repair and rectify concrete

Modification History

Release 2	Updated reference to general construction induction training program.
Release 1	This version first released with CPC Construction, Plumbing and Services Training Package Release 5.0. Supersedes and is equivalent to CPCCCO3046 Repair and rectify concrete.

Application

This unit of competency specifies the skills and knowledge required to repair and rectify defects in concrete. Repairs and rectifications include patching, refinishing, sealing or recolouring to improve aesthetic appearance, as well as more significant repairs and rectifications such as cutting and replacing sections of concrete and repairing cracks in accordance with engineer or manufacturer specifications.

The unit does not cover structural defects requiring underpinning concrete or specialist works involving highly engineered solutions.

A person who has achieved this unit of competency would be expected to take responsibility for organising and completing work tasks with a high degree of self-direction.

Licensing, legislative, regulatory or certification requirements apply to this unit of competency in some states and territories. For further information, check with the relevant regulatory authority.

Completion of the general construction induction training program, specified in the Safe Work Australia model *Code of Practice: Construction Work*, is required by anyone carrying out construction work. Achievement of *CPCWHS1001 Prepare to work safely in the construction industry* meets this requirement.

Pre-requisite Unit

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

Unit Sector

Concreting

Elements and Performance Criteria

Elements describe the Performance criteria describe what needs to be done to

essential outcomes.	demonstrate achievement of the element.
1 Plan and prepare to repair or rectify concrete.	1.1 Assess concrete defect to determine possible causes and repair or rectification processes in consultation with relevant persons. 1.2 Access and interpret manufacturer or engineer specifications associated with concrete repair or rectification work. 1.3 Plan work tasks to comply with manufacturer or engineer specifications and relevant legislation, regulations, standards, codes, work health and safety (WHS), environmental and workplace requirements. 1.4 Select tools and equipment, check for serviceability and rectify or report any faults. 1.5 Select and fit required personal protective equipment (PPE). 1.6 Inspect work site, assess hazards and apply risk controls including required signage and barricades. 1.7 Calculate and acquire material quantities to meet task specifications and safely locate materials ready for use.
2 Carry out concrete repair or rectification activities.	2.1 Use tools, equipment and materials for concrete repair or rectification activities safely in accordance with manufacturer and workplace requirements. 2.2 Carry out concrete repair or rectification activities in accordance with engineer or manufacturer specifications and workplace requirements. 2.3 Conduct checks to ensure concrete defect has been repaired or rectified and take actions required to meet engineer or manufacturer specifications and workplace requirements.
3 Clean up.	3.1 Clear work area and dispose of, reuse or recycle materials in accordance with regulatory and workplace requirements. 3.2 Clean, check, maintain and store tools and equipment in accordance with manufacturer and workplace

requirements.

Foundation Skills

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

Unit Mapping Information

Supersedes and is equivalent to CPCCCO3046 Repair and rectify concrete.

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 CPCCON3046 Repair and rectify concrete

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Performance Evidence

To demonstrate competency, a candidate must meet the elements and performance criteria of this unit by following manufacturer or engineer specifications to repair and rectify defects in a minimum of one square metre of concrete for each of the following:

- three types of defects selected from the list below:
 - cracks less than 2 millimetres (mm) in width
 - broken edge off concrete
 - effects of dusting
 - damaged or blistered horizontal concrete
 - damage to vertical elements requiring feather coat to repair
 - floor that has been screeded out of tolerance and requires self-levelling compound to repair
- one type of defect selected from the list below:
 - a live or dormant crack of between 2 mm and 10 mm in width
 - damaged concrete that needs to be cut out and replaced.

Knowledge Evidence

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

- compliance requirements of legislation, regulations and Australian Standards relevant to concrete repair and rectification tasks:
 - environmental protection and waste disposal
 - specified tolerances
 - work health and safety (WHS)
- common defects in concrete and associated repair or rectification techniques and materials:
 - bonded toppings failure

- cracks including wet, live and dormant
- damaged or blistered concrete
- effects of dusting
- existing concrete toppings failure
- levelling failure
- non-bonding of new to old interfaces
- non-compliant surfaces
- oversized or undersized slabs
- subsidence
- correct techniques for vibrating concrete including correct mixes for vertical elements
- correct positioning of reinforcement where applicable for different repair products including repair material bond to substrate, bonding to reinforcement and cover
- dust suppression methods to be used when repairing or rectifying concrete
- health risks associated with silica dust exposure
- possible causes of defects in concrete including chemical and physical influences:
 - cement hydration process
 - climate effects
 - concrete placement, finishing and curing
- types and purpose of concrete additives
- types, characteristics, uses and limitations of tools, equipment and materials used when repairing and rectifying concrete
- workplace requirements for repairing and rectifying concrete:
 - cleaning up the work area
 - documentation and reporting
 - maintaining and storing tools and equipment
 - quality
 - safety requirements including personal protective equipment (PPE).

Assessment Conditions

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

Assessment must be conducted in the workplace or a simulated workplace using realistic conditions, materials, activities, responsibilities, procedures, safety requirements and environmental considerations.

Candidates must have access to documentation, specifications, work sites, materials, tools and equipment required to achieve the performance evidence.

Links

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