



Australian Government

Assessment Requirements for CPCPRE2003 Grout prefabricated concrete elements

Release: 1

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Modification History

Release 1 This version first released with CPC Construction, Plumbing and Services Training Package Release 9.0.

Newly created unit.

Performance Evidence

To demonstrate competency, a candidate must meet the elements and performance criteria of this unit by:

- grouting two prefabricated concrete elements, either horizontal or vertical including:
 - grouting a 25 mm gap below a 150 mm thick prefabricated concrete element for a length of 3 m, using dry-pack or trowelable grout, and
 - grout filling 3 grout tubes within a prefabricated concrete element, each being at least 50 mm diameter x 500 mm high, using flowable grout.

Knowledge Evidence

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

- compliance requirements of legislation, regulations, codes and Australian Standards relevant to grouting of prefabricated concrete elements, including:
 - environmental protection and waste disposal
 - work health and safety (WHS) regulations, including:
 - use of personal protective equipment (PPE)
 - fall protection
 - drop zones
 - hazardous substances
 - safe manual handling techniques
 - respirable crystalline silica
- erection design documentation
- material data sheets
- effects of temperature, wind and low humidity on the properties of prefabricated concrete:
 - detrimental effect of water addition to concrete properties
 - precautions that should be taken to minimise any potential adverse effects when finishing concrete
- health risks associated with silica dust exposure

- types of drawings and specifications used to interpret concrete installation requirements
- characteristics of grouting materials and the difference between grouting materials properties, including:
 - dry pack
 - plastic
 - trowelable
 - flowable
- grouting process, including:
 - use of anchor bolts in preformed pockets
 - formwork installation
 - pre-soaking the substrate when using cement-based grout
 - use of suitable equipment to mix the grout to dry pack or trowelable consistency
 - shrinkage
 - placement of grout
 - curing and protecting the grout to prevent loss of moisture which could lead to shrinkage and loss of strength
- grouting requirements, including:
 - use of pre-packaged, dry powder blend of cements, graded fillers and chemical additives of proprietary grout
 - mixing with clean water to required consistency according to manufacturer specifications
 - fluid consistency for application
- grouting tool types and their purpose, including:
 - wire brush
 - soft brush
 - scraper
 - sander/grinder
 - spatula
 - roller
 - putty knife
 - grouting gun
 - power leads
 - testing equipment (moisture meter)
- workplace requirements for grouting prefabricated concrete elements:
 - cleaning up the work area
 - maintaining and storing plant, labelling, tools and equipment
 - reporting problems
 - quality
- terminology used for grouting
- specifications used for grouting
- fire rating requirements relevant to prefabricated concrete element rectification

- workplace procedures related to communication protocols
- problems associated with the use of donuts
- principles of sustainability relevant to material reuse
- work planning and logical task sequencing
- types of concrete surface variables that reduce optimal sealant adhesion
- prefabricated concrete release agent residue
- laitance
- dirt and dust
- processes for calculating material measurements and quantities.

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 erection design documentation, material data sheets, materials, manufacturer specifications, plant, tools and equipment required to achieve the performance evidence.

Links

Companion volumes to this training package are available at the VETNet website - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=6f3f9672-30e8-4835-b348-205dfcf13d9b>