



Australian Government

Department of Education, Employment and Workplace Relations

CPCCPD3010A Apply protective paint coating systems

Release: 1

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Modification History

Not applicable.

Unit Descriptor

This unit of competency specifies the outcomes required to apply specialised paint coating systems as a protective measure against atmospheric conditions, sanitation and hygiene risks and the impacts of high traffic areas.

The unit includes planning and preparation for the work, preparation of the work area and materials, application of the coating system and completion of clean-up activities.

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Application of the Unit

This unit of competency supports the attainment of the understanding and skills to apply protective coatings, which may include working with others and as a member of a team.

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Licensing/Regulatory Information

Not applicable.

Pre-Requisites

CPCCOHS1001A

Work safely in the
construction industry

Employability Skills Information

This unit contains employability skills.

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Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.

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

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Elements and Performance Criteria

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Element	Performance Criteria
1 Plan and prepare.	1.1 Work instructions and operational details are obtained using relevant information , confirmed and applied for planning and preparation purposes. 1.2 Safety (OHS) requirements are followed in accordance with safety plans and policies. 1.3 Signage and barricade requirements are identified and implemented. 1.4 Plant, tools and equipment are selected to carry out tasks, including work platforms where required are consistent with the requirements of the job, checked for serviceability and any faults are rectified or reported prior to commencement. 1.5 Materials quantity requirements are calculated in accordance with plans, specifications and quality requirements . 1.6 Materials appropriate to the work application are identified, obtained, prepared, safely handled and

located ready for use.

- 1.7 **Environmental requirements** are identified for the project in accordance with environmental plans and regulatory obligations and applied.
- 2 Prepare surfaces for protective coating.
 - 2.1 Suitability of **surface** for protective **paint coating** is determined in accordance with manufacturer recommendations and job specifications.
 - 2.2 **Surface preparation method** is correctly selected in accordance with the environment, finish and substrate requirements.
 - 2.3 Surface is prepared to manufacturer specifications in compliance with substrate requirements, specifications and relevant standards.
 - 2.4 Surface imperfections are repaired or stopped, filled and sanded to a smooth finish ready for the protective coating in accordance with manufacturer recommendations and job specifications.
- 3 Apply protective coating system.
 - 3.1 Job location is checked to ensure provision of adequate ventilation and precautions taken to prevent fire and explosion.
 - 3.2 **Application for paint coating** is selected consistent with the job location, type of paint, type and condition of surface and climatic conditions.
 - 3.3 Protective coating system is applied and finished in accordance with job/manufacturer specifications and relevant standards.
 - 3.4 **Measurement and dry and wet testing** are carried out in accordance with manufacturer specifications and relevant standards.
- 4 Clean up.
 - 4.1 Waste and unwanted materials are removed and placed into job waste bins or rubbish stockpile in accordance with sound work practices and compliance with the environmental requirements.
 - 4.2 Painting tools, equipment and plant are cleaned with correct solutions and without damage, and stored safely and effectively to manufacturer specifications.

- 4.3 Unused materials are sealed and stored/stacked in accordance with standard material handling practices and techniques and company requirements.
- 4.4 **Paint waste, water and solvents** used in cleaning painting equipment are disposed of in an environmentally sustainable manner and in accordance with relevant legislative requirements.
- 4.5 Work area is cleared and materials disposed of or recycled in a manner to avoid spontaneous combustion and in accordance with legislation, regulations, codes of practice and job specification.

Required Skills and Knowledge

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

Required skills

Required skills for this unit are:

communication skills to:

evaluating own actions and making judgments about performance and necessary improvements

identifying and accurately reporting to appropriate personnel any faults in tools, equipment or materials

organisational skills, including the ability to plan and set out work

recognising procedures, following instructions, responding to change and contributing to workplace responsibilities, such as current work site environmental and sustainability frameworks or management systems

teamwork skills to coordinate own work with others to action tasks and relate to people from a range of cultural and ethnic backgrounds and with varying physical and mental abilities

technological skills to:

determine requirements

enable clear and direct communication, using questioning to identify and confirm requirements, share information, listen and understand

follow instructions

read and interpret:

report faults

use language and concepts appropriate to cultural differences

use and interpret non-verbal communication, such as hand signals

documentation from a variety of sources

drawings and specifications

use a range of mobile technology, such as two-way radio and mobile phones

voice and hand signals to access and understand site-specific instructions.

Required knowledge

Required knowledge for this unit is:

Australian Paint Approval Scheme (APAS) classifications

hazards associated with solvent vapour, chemical fumes, gases, harmful dusts, metal chips,

abrasive grit and asbestos fibres

impact of atmospheric conditions and high traffic on new and existing structures and coatings

job safety analysis (JSA) and safe work method statements

material safety data sheets (MSDS)

materials storage and environmentally sustainable waste management, including correct disposal of water-based, latex-based and solvent-based paints

painting and decorating terminology

plans, drawings and specifications

processes for the calculation of material requirements

protective paint coating application equipment and techniques and their uses and limitations

protective surface coating technology

quality requirements

solid waste and paint sludge disposal techniques and relevant legislation, including Environmental Protection Authority (EPA) and local Council regulations

types of commonly used protective paint coatings, their uses and limitations

types of paints, including the characteristics and uses of paint materials with various volatile organic compound (VOCs) levels and alternative and natural paints

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 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 who demonstrates competency in this unit must be able to provide evidence of the ability to:

- locate, interpret and apply relevant information, standards and specifications

- comply with site safety plan and OHS legislation, regulations and codes of practice applicable to workplace operations

- comply with organisational policies and procedures including quality requirements

- safely and effectively operate and use tools, plant and equipment

- communicate and work effectively and safely with others

- prepare an application of a minimum of three different protective paint coating systems of at least 1 square metre to specification

- dispose of all paint types in an environmentally sustainable way compliant with relevant local legislation and regulations

- clean and store painting equipment using environmentally sustainable methods and work practices including waste reticulation systems.

Context of and specific resources for assessment

This competency is to be assessed using standard and authorised work practices, safety requirements and environmental constraints.

Assessment of essential underpinning knowledge will usually be conducted in an

off-site context.

Assessment is to comply with relevant regulatory or Australian standards' requirements.

Resource implications for assessment include:

an induction procedure and requirement

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

material safety data sheets

research resources, including industry related systems information.

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.

Method of assessment

Assessment methods must:

satisfy the endorsed Assessment Guidelines of the Construction, Plumbing and Services Integrated Framework Training Package

include direct observation of tasks in real or simulated work conditions, with questioning to confirm the ability to consistently identify and correctly interpret the essential underpinning knowledge required for practical application

reinforce the integration of employability skills with workplace tasks and job roles

confirm that competency is verified and able to be transferred to other circumstances and environments.

Validity and sufficiency of evidence requires that:

competency will need to be demonstrated over a period of time reflecting the scope of the role and the practical requirements of the workplace

where the assessment is part of a structured learning experience the evidence collected must relate to a number of performances assessed at different points in time and separated by further learning and practice, with a decision on competency only taken at the point when the assessor has complete confidence in the person's demonstrated ability and applied knowledge

all assessment that is part of a structured learning experience must include a combination of direct, indirect and supplementary evidence.

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.

Supplementary evidence of competency may be obtained from relevant authenticated documentation from third parties, such as existing supervisors, team leaders or specialist training staff.

Range Statement

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.

Information includes:

diagrams or sketches
instructions issued by authorised organisational or external personnel
manufacturer specifications and instructions, where specified
MSDS
memos
regulatory and legislative requirements pertaining to the application of protective paint coating systems
relevant Australian standards
safe work procedures relating to the application of protective paint coating systems
signage
verbal, written and graphical instructions
work bulletins
work schedules, plans and specifications.

Planning and preparation include:

assessment of conditions and hazards
determination of work requirements and safety plans and policies
equipment defect identification
work site inspection.

Safety (OHS) is to be in accordance with state and territory legislation and regulations and project safety plan and may include:

emergency procedures, including extinguishing fires, organisational first aid requirements and evacuation
handling activities that may require the assistance of others or the use of manual or mechanical lifting devices where size, weight

or other issues, such as a disability are a factor

hazard control

hazardous materials and substances

organisational first aid

PPE prescribed under legislation, regulations and workplace policies and practices

safe operating procedures, including the conduct of operational risk assessment and treatments associated with:

use of firefighting equipment

use of tools and equipment

workplace environmental requirements and safety.

earth leakage boxes

electrical and fire and/or explosion from combustible materials

falling objects

lighting

manual handling

power cables, including overhead service trays, cables and conduits

restricted access barriers

solvents, lead, chemicals, fumes/gases

surrounding structures

traffic control

trip hazards

work access platforms

work site visitors and the public

working at heights

working in confined spaces

working in proximity to others, work site visitors and the public

Tools and equipment include:

brushware

brushware accessories

buckets

- covers
- drop sheets
- duster brushes
- hand and mechanical wire brushes
- hand sanders
- high pressure water blasters
- mechanical grinders
- mechanical sanders
- paint pots and buckets
- paint stirrers
- rags
- roller accessories
- roller frames
- scrapers
- spray equipment
- wet and dry film thickness gauges.

Work platforms include:

- aluminium mobile scaffolds
- elevated work platforms
- hop ups
- in situ scaffold erected by qualified personnel
- ladders
- planks
- scissor lifts
- stepladders
- trestles.

Quality requirements include:

- internal company quality policy and standards
- manufacturer specifications, where specified
- relevant regulations, including Australian standards
- workplace operations and procedures.

Materials include:

- cleaning aids

	cleaning chemicals solvents.
Environmental requirements include:	chemical fumes clean-up management dust and noise low odour and emissions stormwater protection waste management.
Surface to be prepared and coated:	may be: includes: new previously coated concrete fibreglass metallic (iron, steel, ferrous and non-ferrous metals) plastics, including polyvinyl chloride (PVC).
Paint coating includes:	polyurethane primer (two pack) epoxy primer (two pack) high build epoxy high build chlorinated rubber.
Surface preparation method includes:	abrasive blasting chemical stripping grinding heat gun sanding scraping (mechanical and hand) washing down using sugar soap water blasting.
Application :	is to comply with relevant Australian standards.
Paint coating includes:	corrosion control

decoration

hygiene and sanitation protection

trafficable areas.

Measurement and dry and wet testing
techniques:

are those required to confirm that wet film
meets specifications.

Paint waste, water and solvents disposal
includes:

use of manual and machine environmentally
sustainable cleaning methods

cleaning water re-cycling or professional
disposal

solid waste disposal requirements

Unit Sector(s)

Construction

Construction

Functional Area

empty

empt