



Australian Government

CPCCPD3033 Apply intumescent coatings

Release: 3

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Modification History

- Release 3 Updated reference to general construction induction training program.
- Release 2 This version first released with CPC Construction, Plumbing and Services Training Package Release 6.4.
Correction to Training Package title in the Modification History from CPC Property Services to CPC Construction, Plumbing and Services Training Package.
- Release 1 This version first released with CPC Property Services Training Package Release 5.0.
Supersedes and is equivalent to CPCCPD3033A Apply intumescent coatings.
Updated to meet the Standards for Training Packages 2012.

Application

This unit of competency specifies the skills and knowledge required to apply intumescent coatings to a range of material surfaces.

The unit includes preparation of the application area, application of the specialist coatings and completion of clean-up activities.

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

Completion of the general construction induction training program specified by the model Code of Practice for Construction Work is required for any person who is to carry out construction work. Achievement of *CPCWHS1001 Prepare to work safely in the construction industry* meets this requirement.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

Pre-requisite Unit

CPCCWHS200 Apply WHS requirements, policies and procedures in the construction
1 industry

Unit Sector

Painting and Decorating

Elements and Performance Criteria

Elements describe the essential outcomes.

Performance criteria describe what needs to be done to demonstrate achievement of the element.

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|-----------------------------------|---|
| 1 Plan and prepare. | 1.1 Review work instructions to apply intumescent coatings. |
| | 1.2 Plan all work to meet relevant requirements of work health and safety (WHS), Commonwealth and state or territory legislation, environmental plans and obligations, manufacturers' specifications, and workplace requirements. |
| | 1.3 Select and fit personal protective equipment (PPE) as required for each task. |
| | 1.4 Inspect work site, assess hazards and apply risk controls, including required signage and barricades. |
| | 1.5 Identify materials appropriate to the work application, calculate quantities and prepare, handle safely and locate ready for use. |
| | 1.6 Select tools and equipment, check for serviceability and rectify and report any faults. |
| 2 Prepare work area and surfaces. | 2.1 Set-up area for application processes to suit surfaces to be coated. |
| | 2.2 Protect surrounding surfaces with drop sheets, masking or removal of objects. |
| | 2.3 Check that where doors, windows and associated furniture are removed they are safely stacked, stored and protected. |
| | 2.4 Check work site to ensure provision of adequate ventilation and implementation of precautions to prevent fire and explosion. |
| | 2.5 Implement measures to ensure application area remains free of dust and foreign matter. |

- 2.6 Check surface to be coated for sufficient clearance for the expansion of the coating in the case of a fire.
 - 2.7 Strip surface completely of any pre-existing finish.
- 3 Apply priming and intumescent coatings to timber.
 - 3.1 Apply priming coat to ensure adhesion of intumescent coating.
 - 3.2 Apply intumescent coating by brush, roller or airless spray, maintaining required temperature and humidity.
 - 3.3 Use measuring gauges to determine wet film thickness.
 - 3.4 Apply top/finish coat to manufacturers' specifications.
 - 3.5 Protect the finish against abrasion and humidity during drying and curing.
 - 3.6 Use measuring gauges to determine dry film thickness to ensure completed coat meets manufacturer's specifications.
- 4 Apply priming and intumescent coatings to structural metal.
 - 4.1 Blast or wire-brush metal surface to prepare for intumescent coating.
 - 4.2 De-grease galvanised steel.
 - 4.3 Measure the temperature of the surface to ensure it meets the manufacturers' specifications.
 - 4.4 Apply priming coat to ensure adhesion of coating.
 - 4.5 Apply intumescent coating by brush, roller or airless spray, maintaining required temperature and humidity.
 - 4.6 Use measuring gauges to determine wet film thickness.
 - 4.7 Apply top/finish coat to manufacturers' specifications.
 - 4.8 Protect the finish against abrasion and humidity during drying and curing.
 - 4.9 Use measuring gauges to determine dry film thickness to ensure completed coat meets manufacturers' specifications.

- 5 Clean up.
 - 5.1 Clean up, meeting all legislative and workplace requirements for safety, waste disposal, materials handling and protection of the environment.
 - 5.2 Clear work area, reuse or recycle materials and place waste and unwanted materials into job waste bins or rubbish stockpile.
 - 5.3 Check and maintain tools and equipment and clean with appropriate solvents.
 - 5.4 Dispose of paint waste and water and solvents used in cleaning tools and equipment in an environmentally sustainable manner.
 - 5.5 Store tools, equipment and sealed unused materials to avoid spontaneous ignition.

Foundation Skills

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

Unit Mapping Information

Supersedes and equivalent to CPCCPD3033A Apply intumescent coatings.

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 CPCCPD3033 Apply intumescent coatings

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Performance Evidence

To demonstrate competency, a candidate must meet the performance criteria of this unit by preparing and applying the following intumescent coating applications to film thickness specification:

- one application on a minimum two square metre or three linear metre timber surface
- one application on a minimum two square metre or three linear metre structural steel surface.

All work must be performed to the standard required in the workplace and must meet the requirements of work health and safety (WHS), Commonwealth and state or territory legislation, manufacturers' specifications, and environmental plans and obligations.

Knowledge Evidence

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

- safety requirements relevant to applying intumescent coatings
- environmental requirements relevant to applying intumescent coatings
- manufacturers' specifications for applying intumescent coatings
- materials, including:
 - primers
 - water-based intumescent coatings
 - solvent-based intumescent coatings
 - suitable clear finishes for protection of the coating

- structural metal, including:
 - beams
 - columns
- job site and humidity requirements
- chemical properties of intumescent coatings
- chemical reaction in fire situation
- coating requirements for structural metal work, including coating performance differences between hollow and concrete-filled structures
- coating requirements for timber
- compatibility of coatings to substrates
- fire resistance level (FRL) rating of intumescent coatings for a range of construction materials
- materials storage and environmentally friendly waste management
- interpreting plans and specifications for intumescent coatings
- processes for the calculation of material requirements relevant to applying intumescent coatings
- quality requirements relevant to applying intumescent coatings
- volume solids behaviour and impact on intumescent coatings performance.

Assessment Conditions

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

This unit must be assessed:

- in the workplace or a close simulation of the workplace environment, provided that simulated or project-based assessment techniques replicate construction workplace conditions, materials, activities, responsibilities and procedures.
- using realistic tasks or simulated tasks, relevant specifications and work instructions, standard work practices, safety requirements and environmental constraints.

Links

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