Unit 223: Apply surface coatings by brush and roller

# Delivery guide

Unit information

This unit is about applying water-borne and/or solvent-borne coatings by brush and/or roller in industrial and/or non-industrial situations, providing protection to the work area, interpreting information, adopting safe, healthy and environmentally responsible work practices, selecting and using materials, components, tools and equipment.

Learners may be introduced to this unit by asking themselves questions such as:

* How would I prepare the work area?
* How would I choose a coating for a particular surface?
* Will I learn to use a variety of tools and techniques to apply different coatings?
* What is the difference between a coating and paint?

Learning outcomes

1. Understand resource selection
2. Understand working to a contract specification
3. Comply with the given contract information to carry out the work safely and efficiently to the required specification

Suggested resources

Textbook

Yarde, B. and Olsen, S. (2020) *The City & Guilds Textbook: Painting and Decorating for Level 1 and Level 2 Diploma/Level 2 Technical certificate*.London: Hodder Education. ISBN 978-1-39830-577-9

Websites

* [Dulux Trade Paint Expert | Products](https://www.duluxtradepaintexpert.co.uk/en/products/products-listing/all/pt_filler%3Aprimer)
* [Crown Trade | Products](file:///C:/Users/User/Dropbox%20(Just%20Content)/JC%20SERVER/PROJECTS%20(Live)/CITY%20%26%20GUILDS/Qualification%20Wales/5.%20Copyediting/221-224%20Painting%20and%20decorating/Crown%20Trade%20|%20Products)
* [Dulux Trade Paint Expert | Glossary](https://www.duluxtradepaintexpert.co.uk/en/knowledge/glossary)
* *City & Guilds Construction SmartScreen Factsheet – Level 2 Technical Certificate in Painting and Decorating* (7909–20)

| **Learning outcomes** | **Criteria** | **Delivery guidance** |
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| 1. Understand resource selection | * 1. Characteristics of the resources | * Learners to know about water-based coatings used in the trade and the ingredients used in their composition. * Learners to know about solvent-based coatings used in the trade and the ingredients used in their composition. * Learners to know about the drying methods of the different paint coatings used in the trade. * Learners to understand the suitability and characteristics of water-based paints, including: primer/undercoat, eggshell, satin, gloss emulsion (matt, soft/mid sheen, silk), varnishes (matt, egg shell, gloss), masonry paint. * Learners to understand the suitability and characteristics of solvent-based paints, including: primers (for multi-purpose, wood, metal, plaster), undercoat eggshell, satin, gloss, varnishes (matt, eggshell, gloss), thixotropic properties. * Learners to know the difference in characteristics between trade and DIY products. * Learners to know how to assess the quality of the paint coatings and identify any common faults/defects. * Learners to know how to rectify any faulty/defective paint coatings and the implications of not doing this. |
| * 1. Use of resources | * Learners to know: * the purpose, e.g. protection/decoration, and function, e.g. primer/finish of water-based paints and where they would be used * the purpose, e.g. protection/decoration, and function, e.g. primer/finish of solvent-based paints and where they would be used * how and when to report any problematic issues with paint materials and the implications of failing to follow procedures * how to dispose of used products and containers correctly without damaging the environment and to understand the importance of recycling. |
| * 1. Organisational procedures to select resources | * Learners to understand organisational documents such as drawings, specifications, schedules and MTIs and to know how to select the most suitable paint coatings to apply to surfaces. |
| * 1. Hazards | * Learners to know about the hazards associated with paint materials. * Learners to understand the process of Risk Assessment Method Statements (RAMS) and to be able to produce their own for a given task. |
| 1. Understand working to a contract specification | * 1. Methods of work | * Learners to understand how to use specifications, programmes of work and method statements for the given task and to understand the implications of not meeting the given deadlines on other trades. * Learners to understand how to use the following application processes and the order they are carried out in to achieve the best possible results: mixing, pouring, diluting, loading, laying-on, laying-off, cutting-in. * Learners to know the correct application processes and the implications of not following them in order. |
| * 1. Tools and equipment | * Learners to understand: * the suitability and characteristics of the different paint brushes used to apply paints to surfaces * the suitability and characteristics of the different rollers used to apply paints to surfaces * the suitability and characteristics of associated equipment used in applying paints to surfaces * the cleaning, maintenance and storage procedures for tools and equipment and the implications of not carrying them out correctly. |
| 1. Comply with the given contract information to carry out the work safely and efficiently to the required specification | * 1. Demonstration of work skills to match, mix, pour, dilute, load, lay-on, lay-off and cut-in | * Learners to be shown how to match paint colour specifications or manufacturers’ colour swatches where required. * Learners to be shown how to stir/mix paint materials to ensure even distribution of ingredients and colour. * Learners to be informed about thixotropic paints and why they are not to be mixed. * Learners to be shown how to strain/search paint materials to remove contamination where required. * Learners to be shown how to pour/decant paint materials into separate containers. * Learners to be shown how to dilute paint coatings to correct consistency/viscosity where required. * Learners to be shown how to load rollers and brushes correctly. * Learners to be shown how to lay on and spread paint coatings correctly. * Learners to be shown how to lay-off applied paint coatings correctly to remove potential application defects. * Learners to be shown how to cut-in accurately to adjoining surfaces. |
| * 1. Use and maintain hand and power tools and associated equipment to apply water-borne and/or solvent-borne coatings to internal and/or external surfaces for industrial and/or non-industrial situations, to given working instructions for trim, broad areas and structural and architectural work by brush and/or roller | * Learners to be shown how to use the different paintbrushes to apply water-based paint and solvent-based paint coatings. * Learners to be shown how to use rollers and their associated equipment to apply water-based paint and solvent-based paint coatings. * Learners to understand the different methods used to calculate paint material quantities and the implications of excessive waste and/or not having enough paint material to complete the task. * Learners to understand how to establish which access equipment and/or working platforms are required to carry out the task and the implications of not choosing the correct option. * Learners to understand organisational documents such as drawings, specifications, schedules and MTIs and to know how to select the most suitable materials and equipment when applying paint coatings by brush and roller. * Learners to be shown the technique used to apply water-based and solvent-based paint coatings to ceilings, walls and floors by brush and roller. * Learners to be shown the technique used to apply water-based and solvent-based paint coatings to skirting and architraves by brush and roller. * Learners to be shown the technique used to apply water-based and solvent-based paint coatings to windows, panelled and flush doors by brush and roller. * Learners to be shown examples/images of the different paint application defects and discuss their causes and how to rectify them while discussing how to prevent them in the future. |