

## Apply coatings by the air spray method

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### Overview

This standard is about assembling and setting up the high volume low pressure (HVLV) air spray systems, applying coatings with air spray equipment and cleaning out and maintaining the air spray equipment, providing protection to the work area, interpreting information, adopting safe, healthy and environmentally responsible work practices, selecting, preparing and using materials, components, tools and associated equipment

This standard is for people working in the occupational area of Decorative Finishing and Industrial Painting Occupations and can be used by operatives, supervisors and managers

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**Performance criteria**

- You must be able to:*
- P1 interpret the given information relating to the work and resources to confirm its relevance
  - P2 comply with the given, relevant legislation and official guidance to carry out your work and maintain safe and healthy work practices
  - P3 select the required quantity and quality of resources for the methods of work
  - P4 comply with organisational procedures to minimise the risk of damage to the work and surrounding area
  - P5 comply with the given contract information to carry out the work efficiently to the required specification
  - P6 complete the work within the allocated time, in accordance with the programme of work

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## Knowledge and understanding

*You need to know and understand:* **Performance Criteria 1**

### **Interpretation of information**

K1 the organisational procedures developed to report and rectify inappropriate **information** and unsuitable **resources**, and how they are implemented

K2 the types of **information**, their source and how they are interpreted

K3 the organisational procedures to solve **problems** with the **information** and why it is important they are followed

### **Performance Criteria 2**

#### **Safe work practices**

K4 the level of understanding operatives must have of **information** for relevant, current **legislation and official guidance** and how it is applied

K5 the types of **fire extinguishers** and how and when they are used

K6 how **emergencies** should be responded to and who should respond

K7 the organisational **security procedures** for tools, equipment and personal belongings

K8 what the accident reporting procedures are and who is responsible for making the report

K9 why, when and how **health and safety control equipment** should be used

K10 how to comply with environmentally responsible work practices to meet current **legislation and official guidance**

### Performance Criteria 3

#### Selection of resources

K11 the characteristics, quality, uses, sustainability, limitations and defects associated with the **resources** and how defects should be rectified

K12 how the **resources** should be used and how any **problems** associated with the **resources** are reported

K13 the organisational procedures to select **resources**, why they have been developed and how they are used

K14 the **hazards** associated with the **resources** and **methods of work** and how they are overcome

### Performance Criteria 4

#### Minimise the risk of damage

K15 how to **protect work** from damage and the purpose of protection

K16 why **disposal of waste** should be carried out safely and how it is achieved

### Performance Criteria 5

#### Meet the contract specification

K17 how **methods of work**, to meet the specification, are carried out and **problems** reported

K18 how **maintenance** of tools and equipment is carried out

### Performance Criteria 6

#### Allocated time

K19 what the **programme** is for the work to be carried out in the estimated, allocated time and why deadlines should be kept

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## Scope/range

### Performance Criteria 1

1 interpretation of drawings, specifications, current regulations, schedules, risk assessments, method statements and manufacturers' information related to the work to be carried out

### Performance Criteria 2

2 avoidance of risk by complying with the given information relating to all of the following

2.1 methods of work

2.2 safe use of health and safety control equipment

2.3 safe use of access equipment

2.4 safe use, storage and handling of materials, tools and equipment

2.5 specific risks to health

### Performance Criteria 3

3 selection of resources associated with own work

3.1 materials

3.2 tools and equipment

### Performance Criteria 4

4 protection of the work and its surrounding area from damage

5 maintain a clear and tidy work space

6 disposal of waste in accordance with current legislation

**Performance Criteria 5**

7 demonstration of work skills to prepare, load, protect, communicate, measure, assemble, position, secure and clean

8 use and maintain hand and power tools, air spray equipment and ancillary equipment

9 set up and adjust spray equipment (high volume low pressure [HVLP] systems) to achieve the finish stated in the given working instructions, relating to

9.1 preparation of coatings

9.2 loading the system

9.3 monitoring and maintaining supply

10 apply water-borne and/or solvent-borne coatings by high volume low pressure [HVLP] air spray systems to given working instructions for the following

10.1 broad work

10.2 linear and structural components

11 check wet film thickness (as specified)

12 shut down and clean out spray equipment

13 implement shut down procedures

13.1 temporary shut down

13.2 final shut down, clean out and maintain spray equipment

**Performance Criteria 6**

14 completion of own work within the estimated, allocated time to meet the needs of other occupations and/or client

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**Scope/range related  
to knowledge and  
understanding**

**Disposal of waste**

1 environmental responsibilities, organisational procedures, manufacturers' information, statutory regulations and official guidance

**Emergencies**

2 operative's response to situations in accordance with organisational authorisation and personal skills when involved with

2.1 fires, spillages, injuries

2.2 emergencies relating to occupational activities (to include air and fluid injection)

**Fire extinguishers**

3 water, CO<sub>2</sub>, foam and powder

**Hazards**

4 those identified by risk assessments, method statements, manufacturers' technical information, statutory regulations and official guidance

**Health and safety control equipment**

5 identified by the principles of prevention for occupational use, types and purpose of each type, work situations and general work environment

5.1 collective protective measures

5.2 personal protective equipment (PPE)

5.3 respiratory protective equipment (RPE)

5.4 local exhaust ventilation (LEV)

**Information**

6 drawings, specifications, current legislation, schedules, risk assessments, method statements, manufacturers' information, official guidance and current regulations governing buildings associated with occupational requirements

## **Legislation and official guidance**

7 this relates to the operative's responsibilities regarding potential accidents, health hazards, people, and the environment whilst working in the workplace, below ground level, in confined spaces, at height, with tools and equipment, with materials and substances, with movement and storage of materials by manual handling and mechanical lifting

## **Maintenance**

8 operative care of spray equipment, associated hand tools, power tools and ancillary equipment

## **Methods of work**

9 application of knowledge for safe and healthy work practices, procedures and skills relating to the method and area of work and materials used to:

9.1 establish access requirements

9.2 check suitability of previously decorated or prepared surfaces

9.3 provide protection by sheeting, masking and removing items

9.4 select and assemble component parts for spraying equipment (high volume low pressure [HVLP] systems)

9.5 prepare and apply coatings: single-pack and two-pack systems

9.6 load, operate, maintain (during use) and monitor the paint spray equipment

9.7 establish air-change requirements in confined areas

9.8 assemble, set up, operate and shut down spray equipment

9.9 use correct spray gun technique on broad areas, angles, linear items and complex structural features

9.10 plan the safety of operatives and the general public from spraying activities

9.11 identify and report spray equipment problems

9.12 identify and rectify application problems

9.13 measure wet film thickness with gauges

9.14 shut down, clean, maintain and store equipment



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- 9.15 identify how atmospheric conditions affect coatings and their application process
- 9.16 identify the working life of prepared materials
- 9.17 provide information for Building Information Modelling (BIM)
- 9.18 recognise and determine when specialist skills and knowledge are required and report accordingly
- 9.19 identify and follow manufacture instructions
- 9.20 work around and in close proximity to plant and machinery
- 9.21 direct and guide the operations and movement of plant and machinery
- 9.22 work at height
- 9.23 inspect and use access equipment
- 9.24 use hand tools and ancillary equipment
- 10 team work and communication
- 11 needs of other occupations associated with applying coatings by the air spray method

### **Problems**

- 12 those arising from information, resources and methods of work
- 12.1 own authority to rectify
- 12.2 organisational reporting procedures

### **Programme**

- 13 types of progress charts, timetables and estimated times
- 14 organisational procedures for reporting circumstances which will affect the work programme

### **Protect work**

- 15 protect work against damage from general workplace activities, other occupations, members of the public and adverse weather conditions

### **Resources**

16 materials, components and equipment relating to types, quantity, quality, sizes and the sustainability of standard and/or specialist:

16.1 water-borne and solvent-borne coatings

16.2 masking materials: masking tape, masking paper, dust sheets, masking shield

16.3 two-pack coatings (base, activator and solvents)

16.4 protective sheeting

16.5 access equipment

16.6 hand tools, wet film thickness gauges and air spray equipment (high volume low pressure [HVLP] systems) and ancillary equipment

17 methods of calculating the quantity, including wastage of materials required associated with the method and procedure to apply coatings by the air spray method

18 confirm resources and materials conform with the specification

### **Security procedures**

19 site, workplace, company, operative and vehicles

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**Relevant Occupations** Painters and Decorators

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**Suite** Decorative Finishing and Industrial Painting Occupations (Construction)

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