

Prepare surfaces by abrasive blast cleaning

Overview

This standard is about preparing and cleaning surfaces by abrasive blast cleaning process and maintaining the blast cleaning 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 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 including those posed by lead and other existing industrial coatings

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 assemble, prepare, load, communicate, position, profile, fill, check, fit, set-up, shut down, protect and blast

8 use and maintain hand tools, power tools, blast cleaning equipment and ancillary equipment

9 set up abrasive blast cleaning equipment

10 operate blast cleaning equipment to achieve the required standard as stated in the given working instructions, relating to the following

10.1 preparation of abrasives

10.2 loading the system

10.3 monitoring and maintaining supply

11 prepare the following surfaces using two types of abrasive media for each

11.1 metal surfaces to the specified profile

11.2 masonry surfaces

12 shut down and clean out the blast cleaning equipment

13 dismantle blast cleaning equipment

Performance Criteria 6

11 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

Fire extinguishers

3 water, CO₂, 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 hand tools, power tools, blast cleaning equipment 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 establish suitable atmospheric conditions

9.3 establish lighting requirements

9.4 mask surfaces

9.5 assemble component parts

9.6 identify and prepare abrasives

9.7 plan the safeguard of operatives and the general public from blast cleaning activities

9.8 prepare, load, operate, maintain (during use) and monitor the abrasive blast cleaning equipment

9.9 monitor blast media effect on the surface to achieve the required standard of surface preparation, profile and cleanliness

9.10 remove toxic and non-toxic surface layers

9.11 monitor the protective integrity of PPE/RPE during work

9.12 evaluate contamination and/or deterioration of newly blasted surfaces and understand the timing constraints for primer application

9.13 close-down, dismantle, clean and store equipment

9.14 provide information for Building Information Modelling (BIM)

9.15 recognise and determine when specialist skills and knowledge are required and report accordingly

9.16 determine specific requirements for structures of special interest, traditional build (pre 1919) and historical significance

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- 9.17 identify and follow manufacturers' instructions
- 9.18 work around and in close proximity to plant and machinery
- 9.19 direct and guide the operations and movement of plant and machinery
- 9.20 inspect and use access equipment
- 9.21 work at height
- 9.22 use hand tools and ancillary equipment
- 10 team work and communication
- 11 needs of other occupations associated with preparing surfaces by abrasive blast cleaning

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 blast media

16.2 lighting and signage

16.3 protective sheeting and masking materials

16.4 abrasive blast cleaning equipment

16.5 plant and access equipment

16.6 hand tools, power tools, surface profile testing equipment, blast cleaning and ancillary equipment

17 methods of calculating quantity, including wastage of materials associated with the method and procedure to prepare surfaces by abrasive blast cleaning

18 confirm resources and materials conform with the specification

Security procedures

19 site, workplace, company, operative and vehicles

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