

Overview

This standard is about preparing and mixing the following construction related materials: cementitious, plasters, resins, adhesives, bonding agents, colourings, waterproof coatings, grouts and pre-mixed compounds as an individual or team member, interpreting information, adopting safe, healthy and environmentally responsible work practices, selecting and using materials, components, tools and equipment - This standard is for people working in the occupational area of construction and civil engineering operations and can be used by operatives, supervisors and managers

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

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 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**

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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

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*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

Scope/range related to performance criteria

Performance Criteria 1

1 interpret drawings, specifications, schedules, method statements, risk assessments, manufacturers' and suppliers' information related to the work to be carried out

Performance Criteria 2

2 avoid risk by complying with the given information relating to at least four 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 select resources associated with own work:

- 3.1 materials and components
- 3.2 tools and equipment

Performance Criteria 4

- 4 protect the work and its surrounding area from damage
- 5 maintain a clear and tidy work space
- 6 dispose of waste in accordance with current legislation

Performance Criteria 5

- 7 demonstrate work skills to measure, gauge, stir, mix, agitate and blend
- 8 use and maintain hand and power tools
- 9 prepare at least two of the following materials for use to given working instructions:
 - 9.1 cementitious
 - 9.2 resins
 - 9.3 adhesives
 - 9.4 bonding agents
 - 9.5 colourings
 - 9.6 waterproof coatings
 - 9.7 grouts
 - 9.8 pre-mixed compounds

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Performance Criteria 6

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

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, powder and their uses

Hazards

4 those identified by risk assessment, Control of Substances Hazardous to Health (COSHH) assessments, methods of work, manufacturers' and suppliers' 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 local exhaust ventilation (LEV)

5.3 personal protective equipment (PPE)

5.4 respiratory protective equipment (RPE)

Information

6 drawings, specifications, schedules, method statements, risk assessments, manufacturers' information, verbal and written instructions, sketches, electronic data, current regulations and official guidance associated with preparing and mixing construction related materials

Legislation and official guidance

7 operative's responsibilities regarding potential accidents, health hazards 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

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and storage of materials by manual handling and mechanical lifting

Maintenance

8 operative care of hand and power tools

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 plan, set out and prepare cementitious materials, resins, adhesives, bonding agents, colourings, waterproof coatings, grouts and pre-mixed compounds for use

9.2 conform to agreed specifications

9.3 set up, prepare, conduct pre-start checks, start, operate, monitor the operation of and close down specialist mixing machinery and equipment

9.4 recognise types of materials and constituents

9.5 work with, around and in close proximity to plant or machinery and lifting equipment

9.6 monitor and check accuracy during progress and on completion of work

9.7 protect constituents and mixed materials

9.8 identify requirements for quality control including tests

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

9.10 use hand and power tools

9.11 use access equipment

10 team work and communication

11 needs of other occupations associated with preparing and mixing construction related materials

Problems

12 those arising from information, resources and methods of work:

12.1 own authority to rectify

12.2 organisational reporting procedures

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Programme**

13 types of productivity targets and time scales

14 how times are estimated

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15 organisational procedures for reporting circumstances which will affect the work programme

Protect work

16 protect work against damage from general workplace activities, other occupations and adverse weather conditions

Resources

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

17.1 cementitious materials, resins, adhesives, bonding agents, colourings, waterproof coatings, grouts, pre-mixed compounds

17.2 hand and power tools

18 how to confirm resources and materials conform with the given specification

19 methods of calculating quantity, length, area, volume and wastage associated with the method and procedure to prepare and mix construction related materials

Security procedures

20 site, workplace, company, operative and vehicles

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Behaviours