

Overview

This standard is about applying corrosion protection systems to reinforced concrete, interpreting information, adopting safe, healthy and environmentally responsible work practices, and selecting, preparing and using materials, components, tools and associated equipment

This standard is for people working in the occupational area of specialist concrete occupations 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 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 the requirements of 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

Apply corrosion protection systems to reinforced concrete

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

Scope/range

Performance Criteria 1

1 interpretation of drawings, specifications, schedules, method statements, risk assessments 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 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 relating to operatives and other personnel

Performance Criteria 3

3 selection of resources associated with own work

3.1 materials, components and fixings

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 measure, mark out, locate, protect, break out, clean, prepare, apply, test, record and report

8 use and maintain hand tools, portable power tools and ancillary equipment

9 apply one of the following corrosion protection systems to given working instructions

9.1 impressed current cathodic protection

9.2 galvanic anode cathodic protection

9.3 corrosion inhibitors

Performance Criteria 6

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10 safe completion of 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 Control of Substances Hazardous to Health (COSHH), risk assessments, methods of work, 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 local exhaust ventilation (LEV)

5.3 personal protective equipment (PPE)

5.4 respiratory protective equipment (RPE)

Information

6 drawings, specifications, current legislation, schedules, method statements, risk assessments, electronic data, manufacturers' information, official guidance and current regulations associated with applying corrosion protection systems to reinforced concrete

Apply corrosion protection systems to reinforced concrete

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Legislation and official guidance**

7 this relates to the operative's responsibilities regarding duty of care legislation, 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 and storage of materials by manual handling and mechanical lifting

Maintenance

8 operative care of hand tools, portable 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 identify and follow the installation method statements and related quality and safety requirements

9.2 measure and mark out areas to be protected

9.3 carry out reinforcement cover surveys and potential (half-cell) surveys, concrete electrical resistivity testing

9.4 assess concrete substrate surface profile and adhesion (pull-off) testing of coatings or overlays

9.5 carry out spot welding, cable crimping, heat shrink sleeving, down hole cover meter surveys, spark testing, electrical isolation and continuity testing

9.6 apply impressed current cathodic protection systems, galvanic anode cathodic protection and corrosion inhibitors

9.7 terminate, fix, protect and test cabling and components

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

9.9 understand the specific requirements for structures of special interest, traditional build (pre 1919) and historical significance

9.10 work with, around and in close proximity to plant and machinery

9.11 use hand tools, portable power tools and equipment

9.12 work at height

9.13 use access equipment

Apply corrosion protection systems to reinforced concrete

10 team work and communication

11 needs of other occupations associated with applying corrosion protection systems to reinforced concrete

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*Problems**

12 those arising from information, resources and methods of work

12.1 own authority to rectify

12.2 report unsafe work practices and environment

12.3 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 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 anode materials and their related cabling or other connection methods

16.2 performance monitoring materials, including but not limited to, reference electrodes, coupons, pseudo electrodes and their related cabling

16.3 corrosion inhibitors

16.4 fittings and fixings

16.5 hand tools, portable power tools and associated equipment

17 confirm resources and materials conform with the specification

18 methods of calculating quantity, length, area and wastage of materials associated with the method and procedure to apply corrosion protection systems to reinforced concrete

Security procedure

COSVR755

Apply corrosion protection systems to reinforced concrete



19 site, workplace, company, vehicles and operative

Apply corrosion protection systems to reinforced concrete

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