

Overview

This standard describes how to cast reinforced concrete. It relates to the work activities that you undertake when casting reinforced concrete.

This standard covers:

- making the preparations required to support the casting process
- casting concrete to specifications.

This standard is suitable for anyone who is required to cast reinforced concrete.

Performance criteria

You must be able to:

1. carry out your work in accordance with relevant environmental and health and safety legislation, risk assessment requirements and company policies and procedures
2. wear suitable clothing and personal protective equipment (PPE)
3. carry out your work in accordance with **instructions and specifications**
4. select and prepare the required tools, equipment and materials
5. check to confirm that a safe working environment has been established
6. prepare and fix formwork to **instructions and specifications**
7. position and secure reinforcement in accordance with **instructions and specifications**
8. select concrete of the specified type, material, quality and grade
9. cast and compact concrete to form components of the specified strength, shape and finish
10. monitor the setting process and identify when concrete is set
11. strike formwork without damaging the concrete
12. establish protection for newly cast reinforced concrete
13. use, maintain and store tools, equipment and materials safely and in a clean and serviceable condition
14. dispose of waste and excess materials safely to minimise environmental risk, in accordance with the relevant legal requirements
15. carry out your work in a manner that causes minimal impact to the surrounding area, other users of the site and anyone else who may be affected

Knowledge and understanding

You need to know and understand:

1. the relevant environmental and health and safety requirements associated with the casting of reinforced concrete
2. the type of clothing and personal protective equipment (PPE) suitable for the task to be carried out
3. the relevant requirements and procedures for gaining access to the site
4. the specific requirements for permit-to-work schemes
5. the types of signs and protective barriers used in the fencing industry
6. the reasons for traffic management when working adjacent to highways and other transport systems
7. where to obtain the **instructions and specifications** required to carry out the work
8. the types of tools, equipment and materials used for casting reinforced concrete and how to prepare, use, and maintain these safely and correctly
9. the types of materials used to create formwork
10. the reasons why concrete is reinforced
11. the types of materials that are used as reinforcement
12. how and why release agents are used to prepare formwork
13. the hazards and safety requirements associated with release agents
14. the materials and ratios used to prepare concrete
15. the methods used for mixing, casting, compacting, finishing and curing concrete
16. how to identify when concrete is set
17. how environmental conditions can affect the concrete curing process
18. why it is important to establish protection for newly set concrete
19. the limits of your responsibility when dealing with difficulties that arise during the work
20. the legal requirements that control the disposal of waste and excess materials
21. the storage requirements for tools and equipment
22. how to minimise the impact of your work on the surrounding area, other users of the site and anyone else who may be affected

Glossary

Instructions and specifications could include:

- plans/drawings
- schedules
- method statements
- Standard Operating Procedures (SOPs)
- manufacturer's guidelines
- customer requirements
- quality standards e.g. BSI, CE
- verbal instructions

Cast reinforced concrete

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Suite Fencing

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