

Overview

This standard is for those who install flexible block surfaces.

This standard is one of a series of six aimed at those who install various forms of hardstanding surfaces that are used within the landscaping industries.

This standard is targeted at operatives working under limited supervision and focuses on the skills required both to understand the structure and to undertake the installation of hard surfaces while working to specifications.

You will be expected to understand the impact of the installation on the immediate environment, and the impact of the environment on the structure.

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Performance criteria

You must be able to:

1. assess the risks associated with the site and the proposed work
2. select, prepare and use tools and equipment for the installation of flexible block surfaces, including personal protective equipment (PPE) and respiratory protective equipment (RPE) safely and correctly
3. keep damage, unnecessary waste, unwanted impact on the environment and pollution to a minimum
4. set out for line and level
5. construct a suitable restraining edge course to both straight lines, regular arcs and irregular curves
6. lay a bedding of sharp/grit sand, screed to the correct depth and level for the flexible block surfaces
7. install flexible block surfaces by hand to a suitable pattern
8. check laid flexible blocks for alignment
9. cut in flexible blocks to required standard
10. compact flexible blocks
11. check the completed installation of flexible block surfaces for compliance and rectify any problems
12. fill joints and re-compact
13. keep the site in a clean and tidy condition whilst installing flexible block surfaces
14. clean, maintain and store tools and equipment promptly and securely after installing flexible block surfaces
15. protect flexible block surfaces correctly against weather and use until they are in a suitable condition
16. leave the site safe, tidy and suitable for intended use
17. maintain working relations with all those involved in, or affected by the installation of flexible block surfaces
18. maintain communication with all those involved in, or affected by, your work
19. carry out your work in accordance with relevant environmental and health and safety legislation, risk assessment requirements, codes of practice and organisational policies

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Knowledge and understanding

You need to know and understand:

1. the weather conditions that are appropriate for installation of flexible block surfaces
2. how to carry out a risk assessment for the installation of flexible block surfaces and decide on safe working methods
3. how to interpret flexible block surface installation specifications
4. how to measure to ensure work is within tolerances
5. how falls, lines and levels are determined and set out
6. how to select and prepare the correct tools and equipment for the task, including personal protective equipment (PPE) and respiratory protective equipment (RPE)
7. how to use, maintain, clean and store the required tools and equipment safely and correctly
8. use of cutting tools including splitter, saw and trimming tools
9. the importance of dust-suppression and respiratory protective equipment (RPE)
10. when using a cut-off saw the importance of edge restraints
11. how to calculate the quantity of paving materials required
12. how paving materials should be stored on-site, how they are delivered to the laying face, and how they are positioned for the laying operative
13. the range of blocks available, including permeable block systems, and their suitable applications
14. the range of block patterns commonly used on-site, their relative strengths and weaknesses, and how they are established
15. the importance of mixing and randomising blocks from three or more packs prior to laying
16. the importance of using the correct bedding material and establishing adequate depths and compaction
17. how areas are continuously checked for compliance to line, level, joint width and block competence during the laying process
18. how cutting-in is achieved following the principles of minimum block size and inboard cutting techniques
19. the importance of using the correct jointing material and its role in the performance of the completed surface
20. techniques used for dry and wet grouting
21. the size, mass and type of compaction equipment suitable for the type of blocks being laid

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22. how compaction equipment is used, and the use of any required attachments removal and replacement of defective blocks
23. how surfaces are continuously checked for compliance to line, level, joint width and material competence during the laying process
24. the importance of final compliance checks
25. the importance of maintaining communication with those involved in, or affected by, your work and how this should be done
26. the importance of following relevant environmental and ecological best practice to help minimise the impact of your work on the environment
27. your responsibilities under relevant health and safety legislation, codes of practice and organisational policies

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Scope/range

- A. select and use the following types of tools and equipment when installing flexible block surfaces:
1. hand tools
 2. vibrating plate compactors
 3. guillotine splitters
 4. cut-off saws
- B. undertake the following tasks when installing flexible block surfaces:
1. block laying
 2. cutting-in
 3. compaction
 4. compliance checks
 5. jointing
 6. lift and repair
- C. use the following types of material:
1. conventional concrete pavers
 2. permeable concrete pavers
 3. conventional clay pavers
 4. permeable clay pavers
- D. work with the following block patterns:
1. stretcher/running/broken bond
 2. 90° herringbone
 3. 45° herringbone
 4. basket weave

Glossary

Block patterns:

- stretcher/running/broken bond
- 90° herringbone
- 45° herringbone
- basketweave

Installation tasks:

- block laying
- cutting-in
- compaction
- compliance checks
- jointing
- lift and repair

Instructions: verbal or written.

Materials:

- conventional concrete pavers
- permeable concrete pavers
- conventional clay pavers
- permeable clay pavers

PPE: Personal Protective Equipment.

RPE: Respiratory Protective Equipment.

Specifications: drawings, schedules, method statements, Standard Operating Procedures (SOPs), organisational policies

Tools and equipment:

- hand tools such as floats and trowels, brick/scutch hammers, paving hammer/maul/

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- mallet, block extractor, alignment bar, string lines, line pins
- vibrating plate compactors
- guillotine splitters
- cut-off saws
- appropriate PPE and RPE

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