
Overview

This standards covers the installation of hard-standing sub-layers that are used within the landscaping industries.

The standard is suitable for operatives working under limited supervision and focuses on the skills required to understand the structure and to undertake the installation of hard surface sub-layers, working to specifications.

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

**Performance
criteria**

You must be able to:

- P1 assess the risks associated with the site and the proposed work
- P2 select, prepare, use and maintain tools and equipment that are appropriate for the work, safely and effectively
- P3 select appropriate materials
- P4 use appropriate methods to rectify any problems
- P5 install sub-layers to accurate levels and profiles
- P6 keep damage, unnecessary waste, unwanted impact on the environment and pollution to a minimum
- P7 clean tools and equipment and store tools, equipment and materials securely
- P8 protect prepared sub-layers effectively against weather and use until they are in a suitable condition
- P9 leave the site safe, tidy and suitable for intended use
- P10 maintain effective working relations with relevant people throughout
- P11 carry out all work in accordance with relevant environmental and health and safety legislation, risk assessment requirements, codes of practice and company policies

Knowledge and understanding

You need to know and understand:

- K1 how to identify hazards and assess risks
- K2 how to interpret risk assessments
- K3 the importance of sub-layers
- K4 the impact that prevailing weather conditions may have on sub-layers
- K5 how to select the correct tools and equipment for the installation of sub-layers, including PPE
- K6 the various types of compaction equipment that can be used, their efficacy, and suitability for various sub-layers and materials
- K7 how to use, maintain, clean and store the required tools and equipment correctly
- K8 how to measure to ensure work is within tolerances
- K9 the sequence of layers that may be encountered within a typical installation and the relevance of each to the overall structure
- K10 the impact of sub-grade conditions on the performance of overlying layers
- K11 the use of geo-textiles to improve and/or reinforce sub-layers
- K12 the range of primary and secondary aggregates that are used in the installation of sub-layers
- K13 the range of bound and unbound materials used in sub-layers
- K14 the range of conventional and permeable materials used in sub-layer installation
- K15 the concept of optimal moisture content to sub-layer compaction
- K16 the importance of sub-layer drainage and how this can be best achieved in a range of circumstances
- K17 the importance of levelling and grading the aggregate within each sub-layer and of working to defined tolerances and profiles, including the checks used to ensure compliance
- K18 how various types of bound and unbound primary and secondary aggregates compact, to what degree, and the importance of installing each sub-layer in stages with a specified maximum thickness
- K19 the potential for environmental pollution and how to prevent it
- K20 the importance of minimising damage and unnecessary waste and how to do so
- K21 your responsibilities under current environmental and health and safety legislation, codes of practice and company policies

Glossary

PPE: Personal Protective Equipment

Sub-layers:

- capping/improvement layer
- sub-base
- base

Machinery:

- vibrating roller
- vibrating plate compactor
- rampactor

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