
Overview

This standard covers the activities required to design and produce green wood or coppice products or components.

Activities include:

- obtaining product specification
- producing a design to meet the specification
- making a prototype
- agreeing final design specification
- planning production
- making, treating and finishing green wood or coppice products or components
- recording information for costing and stock control.

When working with equipment and machinery you must be appropriately trained, and hold current certification where required, in line with the relevant legislation.

Your work must conform to all relevant legislation and codes of practice, industry standards and guidance.

Performance criteria

You must be able to:

Core requirements and responsibilities

1. maintain the health and safety of yourself and others at all times, in accordance with the relevant legislation and codes of practice
2. assess the risks associated with the workplace and the work to be carried out, before starting work and throughout the activity
3. select and implement the safest working methods, in accordance with the assessed risks and organisational procedures and plan work accordingly
4. confirm that relevant training and certification is in place to undertake the work to be carried out and recognise your own competence limitations
5. confirm that appropriate personal protective equipment (PPE) for the work to be carried out is worn at all times
6. select, prepare, use, maintain and store the tools and equipment required safely, in accordance with the relevant legal requirements and manufacturer's instructions
7. confirm that all equipment has been checked, tested where required, and is fit for purpose in accordance with the relevant legal requirements and manufacturer's instructions
8. remove all waste and surplus materials and deal with them in accordance with the relevant legal requirements and organisational procedures
9. implement best practice approaches to sustainability that area appropriate for the work being carried out
10. complete and store all relevant documentation in accordance with the relevant legal requirements and organisational procedures

Design green wood or coppice products or components

1. obtain and confirm an accurate, clear and comprehensive specification from the client for the green wood or coppice products or components
2. produce a design to meet the client's specification for the green wood or coppice products or components
3. ascertain the practicality and availability of materials, tools and equipment required to produce the green wood products or components to the given specification
4. make a prototype sufficient to confirm the client's final specification and to test out the materials and techniques required
5. identify and apply evaluation criteria that are appropriate to the client's specification

and to the business

6. confirm that the client's final specification, materials and techniques are achievable, economical and fit for purpose and agree modifications with the client where this is not possible

7. record clear, sufficient information for accurate costing, stock control and replication of the designs, materials, and techniques used

8. prepare a quotation for producing the green wood or coppice products or components

Produce green wood or coppice products or components

1. obtain the specification for the green wood or coppice products or components

2. plan a work schedule to maximise green wood or coppice material usage and minimise waste

3. check that the materials are suitable and appropriate to meet the specification for the green wood or coppice products or components

4. construct green wood or coppice products or components to the specification using the appropriate techniques

5. check that the green wood or coppice products or components meet the specification

6. finish the green wood or coppice products or components in a suitable way that will enhance and/or preserve them

7. provide advice on how to minimise the degradation of green wood or coppice products or components in use, storage or transit

Knowledge and understanding

You need to know and understand:

Core requirements and responsibilities

1. your responsibilities under the relevant health and safety legislation and codes of practice
2. how to identify hazards and assess risks associated with the workplace and the work to be carried out
3. relevant health and safety procedures and Safe Systems of Work (SSoW)
4. current legislation and codes of practice, industry standards and guidance, organisational policies, procedures and protocols, business and professional ethics that are relevant to your area of work and to which you must adhere
5. the legal, industry and organisational requirements for training and certification to undertake the work activities required, and the importance of acknowledging your limitations and not undertaking work that is beyond your level of competence
6. the tools, equipment and personal protective equipment (PPE) required for the work and how to safely, prepare, use, carry out operator maintenance and store these, in accordance with the relevant legal requirements, manufacturer's instructions, and organisational procedures
7. the legal requirements for checking and testing equipment and why it is important to maintain all equipment to a high standard
8. the correct methods of dealing with waste and surplus materials in accordance with the relevant legal requirements and organisational procedures
9. your and the organisation's responsibility for protecting the environment and working sustainably
10. the legal and organisational requirements for the completion and storage of documentation

Design green wood or coppice products or components

1. how to interpret client specifications presented in written, oral, pictorial and physical form
2. the products that can be made from primary green wood and coppice species, their properties and uses
3. how to recognise the most appropriate woods to use and the main reasons for that choice
4. the visual and physical characteristics of materials

5. the sources of information on styles, techniques, historical background and contexts
6. the potential constraints of materials, equipment, technology and techniques
7. the different design techniques
8. how to apply aesthetic and ergonomic principles
9. how to assess the economic and practical viability of techniques
10. how to produce a prototype
11. how to identify and select evaluation criteria
12. how to apply evaluation techniques
13. the indicators that suggest that a modification is required
14. the ways of identifying and resolving problems with the requirements of the client's specification
15. how to cost out production of green wood or coppice products or components, including time costs
16. how to effectively communicate all aspects of your proposed design to the client

Produce green wood or coppice products or components

1. how to interpret the specification for green wood or coppice products or components
2. how to assess timber for suitability for the green wood or coppice products or components
3. how to match the qualities of the materials to the required products
4. the seasonality of coppice materials and how this can affect the availability and durability of products
5. the methods used to prolong the workable life of green wood or coppice materials
6. how to assess the quality of the green wood or coppice materials
7. the different techniques used to produce green wood or coppice products
8. the essential characteristics of coppice products, bearing in mind the specifications
9. how to work different types of split wood
10. the different types of joints and their uses
11. how to form and finish basic green wood or coppice products or components
12. how to organise the batch production of green wood or coppice products or components
13. the different techniques used to finish and protect green wood or coppice products or components against damage and degradation and when to use them
14. the life expectancy and maintenance requirements of green wood or coppice products or components
15. the need for product liability insurance and when this is appropriate

Scope/range

Assess timber for the following:

- rate of growth
- grain structure and continuity
- presence of knots
- fungal attack
- insect attack
- degree of seasoning
- age
- rots, splits and shanks

Appropriate processes to include:

- splitting, cleaving, riving
- sawing
- axing, chopping
- draw knifing
- peeling

Use wood from the following:

- hazel
- oak
- ash
- willow
- sycamore
- birch
- beech
- chestnut

Glossary

Organisational procedures refer to procedures set by the organisation you are employed by or the organisation that you are doing the work on behalf of (the client or customer)

Safe System of Work (SSoW) – is a method of work that puts in place control measures arising from a risk assessment, in order to manage identified hazards, which are broken down into four elements: safe person; safe equipment; safe place; and safe practice.

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