

Determine specifications for wood or wood-based materials

Overview

This standard covers the skills and knowledge required to be able to specify wood and wood-based products of the right quality for the use to which they will be put. It involves drawing on your knowledge of how wood technology, wood processing and manufacturing of wood-based materials affect the wood or wood-based products you are specifying and identifying which wood or wood-based products to use. To do this, you will need to understand the properties and characteristics of wood and wood-based products and how they react in different circumstances.

This could be useful to anyone specifying wood or wood-based products for a wide range of applications such as buildings, furniture, cases, pallets, flooring or fences.

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Performance criteria

You must be able to:

1. comply with health and safety requirements and procedures at all times
2. assess any existing wood or wood-based products in use to identify if they should be reused or replaced
3. analyse how wood technology, wood processing and manufacturing of wood-based materials affect the wood or wood-based products you are specifying
4. develop specifications which clearly outline which wood or wood-based products should be used to meet specifications
5. record data on improved and new wood products as they become available

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Knowledge and understanding

You need to know and understand:

1. legal duties for health and safety in the workplace and legislation covering your job role
2. species of timber in commercial use, their appearance, individual characteristics, properties and typical end uses
3. differences between softwood and hardwood and the impact this has on wood products
4. what is meant by the term durability, the differing levels of durability, how they are categorised and the woods listed within each category
5. ways to improve wood's ability to resist weathering, decay or infestation and mechanical durability or performance
6. how to recognise strength reducing characteristics in wood
7. types of preservative treatments available, the level of protection they provide and how they should be applied
8. fire retardant treatments and their role in current building practice
9. effects of wood treatments and exterior coatings on wood structure, properties, durability and appearance
10. effect that moisture content has and the reasons for drying wood
11. recommended moisture content for wood for its intended use
12. sources and suppliers of wood or wood-based materials
13. main trade dimensions of available wood
14. current price structure for the wood or wood-based materials used
15. how the quality of wood affects the quality of the end products
16. how to recognise wood that has been graded or classified for strength or appearance and what the grades and strength classes mean
17. schemes related to environmental issues, sustainability and quality and how to work within them
18. differences between wood quality schemes, grading rules and standards
19. how quality range differs between hardwoods and softwoods and appearance and strength grades
20. ways to maximise efficient use of timber
21. manufacturing processes and construction of main types of engineered wood
22. effect of wood properties and characteristics on tools and machinery

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23. basic rules of storage, handling and protection for wood or wood-based materials and the damage or deterioration that will occur if they are not followed
24. regulations and codes of practice you need to comply with when working with wood
25. terminology used in the wood industry

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Suite Wood Technology

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