

## Overview

This standard identifies the competences you need to prepare a range of yacht or boat substrates (such as wood, composite, metal) to enable painting/finishing systems to be applied to the substrates, in accordance with approved procedures. You will be required to carry out preparation on a variety of substrates, using both hand and mechanical tools, including the use of chemical paint strippers where required. The process will also include degreasing using solvents and cleaning the surface prior to the application of the coatings.

Your responsibilities will require you to comply with organisational policy and procedures for the preparation activities undertaken and to report any problems with the preparation activities, materials or equipment used, that you cannot personally resolve, or are outside your permitted authority, to the relevant people. You will be expected to work with either a high level of supervision or as a member of a team. You will take personal responsibility for your own actions and for the quality and accuracy of the work that you carry out. Where team working is involved you must demonstrate a significant personal contribution during the team activities in order to satisfy the requirements of the standard and competency in all the areas required by the standard must be demonstrated.

Your underpinning knowledge will be sufficient to provide a sound basis for your work and will provide an informed approach to applying specified preparation procedures to yacht or boat component surfaces. You will have an understanding of the preparation procedures, their application and relevant standards, in adequate depth to provide a sound basis for carrying out the activities to the required specification.

You will understand the safety precautions required when carrying out the preparatory operations. You will be required to demonstrate safe working practices throughout and will understand the responsibility you owe to yourself and others in the workplace, both ashore and afloat.

## Performance criteria

### *You must be able to:*

1. work safely at all times, complying with health and safety and other relevant regulations, directives and guidelines
2. obtain and follow relevant instructions, standards and other specifications
3. identify the conditions of the surface to be prepared
4. select the appropriate tools and equipment and check that they are in a safe and usable condition
5. carry out the preparation activities using appropriate tools and techniques
6. visually inspect the prepared surface to ensure that it meets the required specification
7. deal promptly and effectively with problems within your control and report those that cannot be resolved
8. shut down and secure the preparation equipment to a safe condition on completion of the activities
9. reinstate the work area on completion of the activities, in line with agreed organisational procedures

## Knowledge and understanding

### *You need to know and understand:*

1. the safe working practices and procedures to be observed when carrying out preparations of yacht and boat surfaces and with the hand and mechanical surface preparation tools (such as general workshop and site safety, protecting other workers from the effects of the work, safety in enclosed/confined spaces, working at height, use of mobile elevated work platforms (MEWPS), atmospheric controls)
2. statutory requirements, risk assessment procedures and relevant requirements of HASAWA and COSHH
3. the environmental impact of the operations you are carrying out and with the materials that are used and how the impact can be minimised
4. the health and safety requirements of the work area in which you are carrying out your surface preparation activities and the responsibility they place upon you
5. the hazards associated with carrying out surface preparation activities, and with the materials and equipment used, (such as dust/debris, hearing damage, hand/arm vibration, working at heights) and how they can be minimised
6. the requirements for working in confined spaces and the importance of emergency procedures and safe systems of work (including permits to work, required air quantities (RAQs) and local exhaust ventilation (LEV) to maintain safe conditions; the provision of adequate and safe lighting, and avoidance of sources of ignition
7. how particular procedures, cleaning materials and arisings can result in a compartment or space (such as an accommodation space or tented enclosure) becoming a confined space
8. the importance of having regular medical examinations when using vibrating tools, solvent based materials, or when exposed to hazardous arisings
9. the personal protective equipment (PPE) to be worn during the surface preparation activity and its care and correct use
10. how to obtain the necessary job instructions required for the work being carried out
11. the reasons for carrying out surface preparation and the effects on the final finishing activities if preparations are not carried out correctly
12. the various types of substrate that may require preparing and the preparation methods that may be used on them
13. the damage that may result from using inappropriate tools and techniques

14. the types of defects and contamination to be found on unpainted and painted surfaces
15. types of tools and equipment used for the surface preparation activities (to include setting up and safe operation, compatibility of the power tools and wheels, checking air supplies and hoses for leaks and for contamination, safety arrangements and guards, manufacturers' operating instructions, and techniques for using them)
16. the importance of the maintenance of a register of power tools and the need to check tools against certification
17. quality control techniques and procedures used during the preparation activities and how the environmental conditions may have an effect on work output and on its quality
18. the various types of tests that are carried out on the prepared surfaces to check their compliance with the specification
19. why tool/equipment control is critical and what to do if a tool or piece of equipment is unaccounted for on completion of the activities
20. how to dispose of waste materials safely, including the environmental impact of the materials you are using and the minimisation of this impact
21. the extent of your own responsibility and whom you should report to if you have problems that you cannot resolve

## Scope/range related to performance criteria

1.

Carry out all of the following during the preparation activities:

- 1.1 ensure you have the necessary information to carry out the preparation activities (such as job instructions)
- 1.2 adhere to procedures or systems in place for risk assessment, COSHH, personal protective equipment and other relevant safety regulations
- 1.3 confirm that all necessary husbandry and containment arrangements are in place and are adequate
- 1.4 maintain safe access and working arrangements for the work area
- 1.5 carry out the preparation activities using appropriate techniques and procedures
- 1.6 prepare surfaces which comply with the specification
- 1.7 leave the work area in a safe and tidy condition

2.

Carry out preparation activities on yacht or boat surfaces, to include both of the following:

- 2.1 unpainted surfaces
- 2.2 painted surfaces

3.

Carry out preparation activities on two of the following types of substrate:

- 3.1 wood
- 3.2 non-ferrous metals
- 3.3 ferrous metals
- 3.4 composite materials
- 3.5 other specific materials (such as ceramic, compliant rubber/polymer, plastics)

4.

Visually inspect surfaces and identify defects and preparation requirements for three of the following conditions:

- 4.1 surface contamination
- 4.2 surface corrosion
- 4.3 coating detachment
- 4.4 coating cure
- 4.5 damaged or defective deck screed/covering
- 4.6 paint coating defects (such as cracking/crazing, flaking, blistering, cissing, chalking, pinholing, wrinkling)

5.

Prepare the surfaces using tools and techniques appropriate to the substrate, to include using **four** of the following

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- 5.1 degreasing solvents
- 5.2 hand tools
- 5.3 fresh water (alone or with detergent)
- 5.4 chemical paint remover
- 5.5 power wire brush
- 5.6 low pressure water cleaning
- 5.7 hand abrasives
- 5.8 power discing
- 5.9 high pressure water cleaning
- 5.10 brushes or vacuum cleaner
- 5.11 other specific tool

6.

Carry out the preparation activities in three of the following situations:

- 6.1 internal spaces
- 6.2 weather decks
- 6.3 hull bottoms
- 6.4 covered exteriors
- 6.5 outer bottoms
- 6.6 at height
- 6.7 exposed exteriors
- 6.8 confined spaces (such as tanks, voids, double bottoms)

7.

Carry out the preparation activities in two of the following boat yard environments:

- 7.1 ashore
- 7.2 afloat
- 7.3 outside environment
- 7.4 workshop

8.

Use three of the following methods to check that the prepared surfaces meet the specified standards:

- 8.1 visual examination
- 8.2 surface profile comparators
- 8.3 press tape
- 8.4 adhesion test
- 8.5 swabs
- 8.6 acid test

9.

Carry out surface preparations on yacht or boat components, in accordance with one of the following:

- 9.1 BS, EN or ISO standards and procedures
- 9.2 customer (contractual) standards and requirements
- 9.3 company standards and procedures
- 9.4 specific equipment requirements/manufacture's data
- 9.5 recognised compliance agency/body's standards (such as Lloyds, Boat

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Safety Scheme, BMEA Code)

9.6 other accepted international standards

10.

Reinstate the work area on completion of the preparation activities, to include carrying out all of the following:

10.1 safely disposing of arisings and waste materials

10.2 cleaning and returning all tools and excess materials

10.3 removing protection and exclusion arrangements (if no longer required)

10.4 contributing to the completion of all required records

10.5 leave the work area in a safe and tidy condition

## Behaviours

You will be able to apply the appropriate behaviours required in the workplace to meet the job profile and overall company objectives, such as:

- strong work ethic
- positive attitude
- team player
- dependability
- responsibility
- honesty
- integrity
- motivation
- commitment

SEMME2125



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<b>Developed by</b>	Enginuity
<b>Version Number</b>	2
<b>Date Approved</b>	28 Feb 2018
<b>Indicative Review Date</b>	01 Feb 2021
<b>Validity</b>	Current
<b>Status</b>	Original
<b>Originating Organisation</b>	Semta
<b>Original URN</b>	SEMME2125
<b>Relevant Occupations</b>	Engineering, Engineering and Manufacturing Technologies
<b>Suite</b>	Marine Engineering Suite 2
<b>Keywords</b>	Yacht; boat; painting; coating; finishing; servicing; maintaining; repairing

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