
Overview

"This standard describes the design and manufacture, using manual or digital techniques, of finished restorations by applying tooth coloured materials to metallic sub-structures. You need to apply the tooth coloured materials, either polymeric or ceramic, to metallic sub-structures and assure the quality of the restorations.

The term 'client' is used to mean the member of the oral health care team who has prescribed the custom-made restoration. Clients may be external to the organisation (such as other laboratories, dental practitioners, training schools) or internal (within a dental hospital). The individual is the one for whom the custom-made restoration is being made.

Users of this standard will need to ensure that practice reflects up to date information and policies."

Performance criteria

You must be able to:

1. access and accurately interpret all relevant work instructions and information
2. work safely at all times and in accordance with all relevant legislation, guidelines, policies, procedures and protocols
3. deal promptly and effectively with any problems within your control and report those which cannot be solved
4. communicate with relevant others at a pace, manner and level appropriate to their understanding, preferences and needs
5. identify and minimise hazards and risk in the workplace
6. collate all specification information required for the design and manufacture of the single tooth coloured restorations based on metallic sub-structures
7. confirm accuracy of the specification with relevant others
8. select the necessary components, materials and equipment and confirm that they are fit for purpose
9. set up the manufacturing equipment in accordance with the specification
10. manufacture the single tooth coloured restorations based on metallic sub-structures using appropriate methods and techniques
11. monitor the manufacturing process and adjust as required
12. de-vest or retrieve the manufactured product using an appropriate method which releases the item without causing damage
13. check that the manufactured product matches the specification and make any necessary adjustments
14. dispatch in accordance with the organisational requirements
15. dispose of waste in accordance with organisational procedures
16. complete and store all relevant documentation in accordance with organisational requirements"

Knowledge and understanding

You need to know and understand:

1. the current legislation, guidelines, policies, procedures and protocols which are relevant to your work practice and to which you must adhere
2. the scope and limitations of your own competence, responsibilities and accountability as it applies to your job role
3. how to access and interpret all relevant work instructions and information
4. specific procedures for reporting issues which are beyond your competence, responsibilities and accountability
5. the duty to report any acts or omissions that could be unsafe/detrimental to you or others
6. how to communicate with relevant others at a pace, manner and level appropriate to their understanding, preferences and needs
7. the hazards and risks which may arise during the execution of your work role and how you can minimise these
8. the correct use of any equipment and PPE to protect the health and safety of you and others
9. the principles and use of digital design and manufacturing
10. relevant digital manufacturing equipment, methods and techniques
11. the skeletal anatomy, physiology of the head and neck and tooth morphology
12. the structure, function, and movement of the oro-facial musculature including the tongue and temporomandibular joint
13. disorders and diseases affecting the oral cavity
14. the aetiology and classifications of malocclusions
15. the physiological and pathological changes associated with the ageing process and trauma related to the oral environment
16. the importance of retention of the periodontal ligament and the changes in proprioception due to loss of periodontal ligament
17. the broader factors (sociological, behavioural, environmental and economic) that contribute to oral health and illness.
18. principles and practice of:
 - * articulation
 - * aesthetics and phonetics
19. the principles of restoration design
20. the constituents of restorations and how they are made

21. the classification and sub-classification of materials on the basis of chemical composition and internal structure
22. the mechanical, physical, thermal, chemical and biological properties of materials
23. waxes used in the manufacture of restorations
24. aesthetic restorative materials
25. dental alloys
26. dental refractory materials
27. the relationship between chemical bonds and the properties of solid materials
28. methods of developing, maintaining and improving communication and information relating to the provision of custom-made dental devices
29. methods of protection against contamination and infection control when handling received impressions and other items which may have been in the mouth, or which are intended to be placed in the mouth; why it is important to do so
30. principles of quality assurance including effective recording and sampling; processes and procedures for quality assurance in your workplace
31. methods of setting and calibrating equipment and of testing that this is correct
32. the effects of modifying manufacturers' products to meet laboratory requirements on the physical properties of products and on quality assured products, and the legal implications of poor manufacturing
33. the range of equipment used in the design and manufacture of dental devices; methods of using equipment and materials safely including the use of chemicals and other hazardous substances; methods of storing different equipment and materials safely and securely; methods of cleaning and maintaining different types of equipment and your role in this
34. how to dispose of waste in accordance with organisational procedures
35. how to complete and safely store all relevant documentation in accordance with organisational requirements"

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Design and manufacture single tooth coloured restorations based on metallic sub-structures



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