
Overview

This standard is about the ability to identify, mix and match vehicle paint colours, including the use of tinters and the preparation of colour test cards.

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Performance criteria

- You must be able to:
- P1 wear suitable personal protective equipment and use the specified environmental safety equipment throughout all paint mixing and matching activities
 - P2 support paint mixing and matching activities by reviewing:
 - P2.1 the vehicle manufacturer's technical data
 - P2.2 material manufacturer's technical data
 - P2.3 colour libraries
 - P2.4 spectrometer
 - P2.5 work instructions
 - P3 prepare, check and adjust all the equipment required, following manufacturer's instructions, prior to use
 - P4 prepare all the refinishing systems and materials required following health and safety requirements and using:
 - P4.1 materials which conform to the specification required
 - P4.2 the manufacturer's approved method
 - P4.3 the manufacturer's approved equipment
 - P5 mix, compare and adjust colour tones and effects correctly using suitable mixing and matching techniques
 - P6 estimate the appropriate amount of mix material
 - P7 select an appropriate refinishing technique
 - P8 ensure all refinishing systems and materials prepared meet the specification required for colour and viscosity prior to application
 - P9 apply refinishing systems and materials to colour test cards using approved equipment and following:
 - P9.1 the manufacturer's instructions
 - P9.2 the correct application techniques for managing colour and tone variables
 - P9.3 health and safety requirements
 - P10 dry all colour test cards before checking colour following health and safety requirements and using:
 - P10.1 the manufacturer's technical data

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- P10.2 the manufacturer's approved equipment
 - P11 ensure the colour produced:
 - P11.1 meets the material manufacturer's technical data
 - P11.2 meets the customer's requirements
 - P11.3 is a blendable match to the existing colour
 - P12 dispose of waste materials to conform with legal, environmental and workplace requirements
 - P13 leave tools, equipment and work environment in a clean and serviceable condition, as appropriate
 - P14 complete all mixing and matching activities within the agreed timescale and to an agreed quality control process
 - P15 report any anticipated delays in completion to the relevant person(s) promptly

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Knowledge and understanding

You need to know and understand:

- K1 the health and safety and environmental legislative requirements specific to mixing and matching vehicle colours and why it is important that these are followed
- K2 workplace procedures and workshop practices relevant to personal and vehicle protection before, during and after mixing and matching vehicle colours
- K3 the importance of disposing of waste safely and the consequences of not doing so to others, the business and the environment
- K4 the vehicle work specification agreed
- K5 your workplace procedures for:
 - K5.1 the referral of problems
 - K5.2 reporting delays to the completion of work
- K6 the importance of working to agreed timescales and keeping others informed of progress
- K7 the relationship between time, cost and productivity
- K8 the importance of reporting anticipated delays to the relevant person(s) promptly
- K9 how to prepare, check, adjust and use all the equipment required for mixing and matching vehicle paint colours
- K10 how spraying equipment adjustments can alter colour
- K11 spray gun faults, their cause and their rectification
- K12 the properties of refinishing systems and materials and the factors affecting their use
- K13 how to find, interpret and use sources of information relevant to the mixing and matching of vehicle paint colours
- K14 the principles of colour theory and the effects of light
- K15 how to compare, mix, test and adjust colour tones and effects, including metallic, mica and other specialist effects
- K16 the consequences of adding too much tinter and the process for correcting and adjusting it
- K17 the implications of combining different manufacturer's paint products

- throughout the refinishing process
- K18 the factors affecting colour variation and tone, including the effects of metamerism
 - K19 how to dry test panels and colour test cards and the importance of doing so
 - K20 how to identify the causes of, and rectify, colour mismatch
 - K21 how to assess and evaluate the need for blending techniques to achieve an acceptable colour match
 - K22 the importance and implications of correctly preparing the existing finish for colour matching and checking the match using the correct light source
 - K23 how to identify the paint substrate and the importance of doing so
 - K24 how to dispose of waste materials in compliance with any environmental requirements/legislation and workplace procedures
 - K25 how to work safely avoiding damage to vehicles, personal injury and injury to colleagues
 - K26 the importance of following manufacturer's instructions and using their approved methods of working, including use of refinishing systems, materials and equipment)
 - K27 the consequences of failing to follow manufacturer's instructions
 - K28 the varied range of technology used within the mixing and matching process
 - K29 the advantages of creating and storing your own colour library
 - K30 the implications of rectification identified by an agreed quality control process

IMIARPO13
Mix and match colours for automotive vehicles



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