



Australian Government

Department of Education, Employment and Workplace Relations

AURV329803BA Apply multi layer/clear over base colour matching techniques

Release: 1

AURV329803BA Apply multi layer/clear over base colour matching techniques

Modification History

Not Applicable

Unit Descriptor

Unit descriptor	This unit covers the competence required to match multi layer/ clear over base colours.
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Application of the Unit

Application of the unit	The unit includes identification and confirmation of work requirement, preparation for work, the mixing of colours, the preparation of colour test cards, the performance of visual matching tests and completion of work finalisation processes, including clean-up and documentation. Work requires individuals to demonstrate judgement and problem-solving skills in managing own work activities and contributing to a productive team environment. Work is carried out in accordance with award provisions.
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Licensing/Regulatory Information

Not Applicable

Pre-Requisites

Prerequisite units		

Employability Skills Information

Employability skills	This unit contains employability skills.
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Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.
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Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Prepare for work	1.1. Work instructions are used to determine the job requirements, including method and material type. 1.2. Job specifications are read and interpreted. 1.3. OH&S requirements, including personal protection needs, are observed throughout the work. 1.4. Materials are selected and inspected for quality. 1.5. Hand, power tooling and safety equipment are identified and checked for operation. 1.6. Procedures are determined to minimise waste material. 1.7. Procedures are identified for maximising energy efficiency while completing the job.
2. Mix multi-layer/clear over base paint colours	2.1. Mixing is performed using the appropriate method and/or system. 2.2. Mixing activities are carried out according to industry regulations/guidelines, OH&S legislation, and enterprise procedures/policies. 2.3. Multi-layer/clear over base paint colours are mixed without causing damage to any component or system.
3. Prepare colour test card and perform visual matching test	3.1. Test card is prepared in the prescribed manner, to enable a visual comparison between matched and original paints. 3.2. Visual matching tests are performed and findings noted. 3.3. Following matched and original paint comparison, paint is remixed for further matching prior to application. 3.4. Activities are carried out according to industry regulations/guidelines, OH&S legislation, and enterprise procedures/policies.
4. Clean up work area and maintain equipment	4.1. Material that can be reused is collected and stored. 4.2. Waste and scrap is removed following workplace procedure. 4.3. Equipment and work area are cleaned and inspected for serviceable condition in accordance with workplace procedures. 4.4. Unserviceable equipment is tagged and faults identified in accordance with workplace procedures. 4.5. Operator maintenance is completed in accordance with manufacturer/component supplier specifications and worksite procedures. 4.6. Tooling is maintained in accordance with workplace procedures.

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge required for this unit.

Required skills

- collect, organise and understand information related to work orders, plans and safety procedures for multi layer/clear over base paint matching techniques
- communicate ideas and information to enable confirmation of work requirements and specifications, coordination of work with worksite supervisor, other workers and customers, and the reporting of work outcomes and problems
- plan and organise activities, including preparation and layout of worksite and obtaining of equipment and materials to avoid backtracking, workflow interruptions or wastage
- work with others and in a team by recognising dependencies and using cooperative approaches to optimise workflow and productivity
- use mathematical ideas and techniques to calculate time, apply accurate measurements, calculate material requirements and establish quality checks
- establish safe and effective work processes which anticipate and/or resolve problems and downtime, to systematically develop solutions to avoid or minimise reworking and avoid wastage
- use workplace technology related to colour matching of multi-layer/clear over base colours, including the use of specialist tooling, measuring equipment, computerised technology and communication devices and the reporting/recording of results

Required knowledge

A working knowledge of:

- OH&S regulations/requirements, equipment, material and personal safety requirements
- environmental protection requirements
- material safety data sheets
- paint mixing techniques/mixing machines and systems operation
- colour matching techniques relevant to multi layer/clear over base paint materials
- colour test cards and visual matching techniques
- work organisation and planning processes
- enterprise quality processes

Evidence Guide

EVIDENCE GUIDE

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

Overview of assessment

Critical aspects for assessment and evidence required to demonstrate competency in this unit

It is essential that competence is fully observed and there is ability to transfer competence to changing circumstances and to respond to unusual situations in the critical aspects of:

- observing safety procedures and requirements
- communicating effectively with others involved in or affected by the work
- selecting methods and techniques appropriate to the circumstances
- completing preparatory activity in a systematic manner
- applying paint mixing procedures
- applying colour matching techniques for multi-layer/clear over base paint materials
- preparing colour test cards
- performing visual matching tests.

Context of, and specific resources for assessment

Application of competence is to be assessed in the workplace or simulated worksite.

Assessment is to occur using standard and authorised work practices, safety requirements and environmental constraints.

Assessment is to comply with regulatory requirements, including Australian Standards.

The following resources should be made available:

- workplace location or simulated workplace
- materials relevant to colour matching of multi layer/clear over base colours
- equipment, hand and power tooling appropriate to colour matching of multi-layer/clear over base colours
- activities covering mandatory task requirements
- specifications and work instructions.

Method of assessment

- Assessment must satisfy the endorsed assessment guidelines of the automotive industry's RS&R Training Package.
- Assessment methods must confirm consistency and accuracy of performance together with application of underpinning knowledge.

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- Assessment must be by direct observation of tasks, with questioning on underpinning knowledge and it must also reinforce the integration of key competencies.
- Assessment may be applied under project related conditions and require evidence of process.
- Assessment must confirm a reasonable inference that competence is able not only to be satisfied under the particular circumstance, but is able to be transferred to other circumstances.
- It is preferable that assessment reflects a process rather than an event and occurs over a period of time to cover varying quality circumstances. Evidence of performance may be provided by customers, team leaders/members or other persons subject to agreed authentication arrangements.
- Competence in this unit may be assessed in conjunction with other functional units which together form part of the holistic work role.

EVIDENCE GUIDE**Guidance information for assessment****Range Statement****RANGE STATEMENT**

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

Matching methods

Matching methods include application of spray gun techniques, various spraying techniques, drying procedures, paint mixing methods, paint straining methods, paint thinning methods.

OH&S

OH&S requirements are to be in accordance with legislation/regulations/codes of practice and enterprise safety policies and procedures. This may include protective clothing and equipment, use of tooling and equipment, workplace environment and safety, handling of materials, use of fire fighting equipment, enterprise first aid, hazard control and hazardous materials and substances.

Personal protective equipment

Personal protective equipment is to include that prescribed under legislation/regulation/codes of practice and workplace policies and practices.

Safe operating procedures

Safe operating procedures are to include, but are not limited to operational risk assessment and treatments associated with vehicular movement, toxic substances, electrical safety, machinery movement and operation, manual and mechanical lifting and shifting, working in proximity to others and worksite visitors.

Emergency procedures

Emergency procedures related to this unit are to include, but are not limited to emergency

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	shutdown and stopping of equipment, extinguishing fires, enterprise first aid requirements and worksite evacuation.

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Environmental requirements	Environmental requirements are to include but are not limited to waste management, noise, dust and clean-up management.
Quality requirements	Quality requirements are to include, but are not limited to regulations, including Australian Standards, internal company quality policy and standards and enterprise operations and procedures.
Statutory/regulatory authorities	Statutory/regulatory authorities may include Federal, State/Territory and local authorities administering acts, regulations and codes of practice.
Tooling and equipment	Tooling and equipment may include tinting machines, microfiche, scales, air operated agitators, hand paddles, mixing banks, spray gun stem strainers, funnel strainers, mesh strainers, nylon stocking weave, vacuum paint strainers, viscosity measuring equipment, high-volume low-pressure spray guns, gravity feed spray guns, suction feed spray guns, pressure regulators, air compressors, personal protective equipment, spray booths, baking ovens, heating and lighting systems, polishing and cleaning equipment, safety equipment and metal/cardboard test cards.
Materials	Materials may include acrylic lacquers, air dry synthetic enamels, two-pack urethane acrylic enamels, metallic two pack enamels, clear acrylic lacquers, metallic acrylic lacquers, pearl finishes, water-based finishes, paint thinners, paint reducers and cleaning materials.
Communications	Communications are to include, but are not limited to verbal and visual instructions and fault reporting and may include worksite specific instructions, written instructions, plans or instructions related to job/task, telephones and pagers.
Information/documents	Sources of information/documents may include: • verbal or written and graphical instructions, signage, work schedules/plans/specifications, work bulletins, memos, material safety data

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	sheets, diagrams or sketches • safe work procedures related to colour matching of multi layer/clear over base colours • regulatory/legislative requirements pertaining to automotive painting and finishing • engineer's design specifications and instructions • organisation work specifications and requirements • instructions issued by authorised enterprise or external persons • Australian Standards.
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Unit Sector(s)

Unit sector	Vehicle body
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Co-requisite units

Co-requisite units		

Competency field

Competency field	
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