



Australian Government

MSFSL3005 Paint and fire glass

Release: 1

MSFSL3005 Paint and fire glass

Modification History

Release 1 - New unit of competency

Application

This unit of competency covers applying patterns and/or designs to glass with vitreous paints to achieve specific outcomes through the firing of glass.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

Pre-requisite Unit

Competency Field

Unit Sector

Leadlight and Stained Glass

Elements and Performance Criteria

Elements describe the essential outcomes.

Performance criteria describe the performance needed to demonstrate achievement of the element.

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| 1 | Identify painting and firing requirements | 1.1 | Applicable work health and safety (WHS), legislative and organisational requirements relevant to leadlight and stained glass operations are verified and complied with |
| | | 1.2 | Types and quantities of patterns, designs and materials required are identified from plans or work instructions |
| | | 1.3 | The processes for painting patterns and designs onto glass and achieving specific outcomes through the firing of glass are identified |
| 2 | Prepare to paint and fire glass | 2.1 | Painting sequence is determined in a logical order to suit the job |
| | | 2.2 | Tools, equipment and materials are selected and checked prior to use to ensure they are appropriate for painting and firing, serviceable and in a safe condition |
| | | 2.3 | Patterns and design templates are checked against |

			specifications or job order
		2.4	Paint colours are matched against the plan or work order and glass prepared for painting
3	Apply vitreous paint	3.1	Paint is applied to the glass surface in accordance with the pattern or design template
		3.2	Any problems occurring during the painting operation are identified and rectified
4	Conduct firing operations	4.1	Firing sequence is determined in a logical order to suit the job
		4.2	Kiln is checked prior to use to ensure it is appropriate for the firing, serviceable and in a safe condition
		4.3	Kiln components and controls, including emergency stops and guards, are identified and checked for correct operation
		4.4	Glass is prepared for firing and kiln equipment is operated, adjusted and monitored to ensure correct product quality and output
		4.5	Any problems occurring during the firing operation are identified and rectified
5	Finalise the work	5.1	Painted and fired glass is inspected for quality of work and repaired or discarded, as required
		5.2	Waste and scrap material are removed for disposal or recycling, as required
		5.3	Work area is cleaned and rubbish disposed of, as appropriate
		5.4	Tools, equipment and unused materials are cleaned and removed and stored appropriately
		5.5	Workplace records are maintained according to workplace procedures

Foundation Skills

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency. Detail on appropriate performance levels for each furnishing unit of competency in reading, writing, oral communication and numeracy utilising the Australian Core Skills Framework (ACSF) are provided in the Furnishing Training Package Implementation Guide.

Range of Conditions

Specifies different work environments and conditions that may affect performance. Essential operating conditions that may be present (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) are included. Range is restricted to essential operating conditions and any other variables essential to the work environment.

Unit context includes:	• WHS requirements, including legislation, building codes, material safety management systems, hazardous and dangerous goods codes, and local safe operating procedures or equivalent • work is carried out in accordance with legislative obligations, environmental legislation, relevant health regulations, manual handling procedures and organisation insurance requirements • work requires individuals to demonstrate some discretion, judgement and problem solving
Patterns and designs include:	• freehand or computer-drawn templates • artwork to be transferred to glass • designs to be transferred to glass • other patterns
Materials include:	• clear, coloured or painted glass • vitreous paints • bedding sand • marking and masking materials
Specific outcomes include:	painting • staining • forming
Tools and equipment include:	• work benches • light tables • paint brushes and other applicators • general hand tools • firing kiln
Preparation includes:	• cleaning • marking

	• masking • applying templates
Records include:	• product type • size • inspection • inspection outcomes • quality outcomes • storage locations
Personal protective equipment includes:	• that prescribed under legislation, regulation and enterprise policies and practices: • gauntlets • gloves • safety glasses • hard hats • safety footwear • aprons and overalls
Information and procedures include:	• workplace procedures relating to the use of tools and equipment and personal protective equipment • work instructions, including job sheets, cutting lists, plans, drawings and designs • workplace procedures relating to reporting and communication • manufacturer specifications and operational procedures

Unit Mapping Information

Supersedes and is equivalent to LMFSL3007A Paint and fire glass.

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=0601ab95-583a-4e93-b2d4-cfb27b03ed73>

Assessment Requirements for MSFSL3005 Paint and fire glass

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Performance Evidence

- Interpret work order and locate and apply relevant information
- Apply safe handling requirements for equipment, products and materials, including use of personal protective equipment
- Identify materials used in the work process
- Follow work instructions, operating procedures and inspection processes to:
 - minimise the risk of injury to self or others
 - prevent damage to goods, equipment and products
 - maintain required production output and product quality
- Identify glass suitable for painting and firing, their properties, uses and limitations
- Identify the properties and limitations of glass when heat is applied and the likely impact of various environmental effects on painted and fired glass
- Paint and fire glass on at least one occasion using freehand process and on at least one other occasion using a template process to achieve required outcomes
- Comply with legislation, regulations, standards, codes of practice and established safe practices and procedures for the painting of glass with vitreous paints and firing glass to meet specified outcomes
- Use mathematical ideas and techniques to correctly complete measurements, calculate area and estimate material requirements
- Communicate ideas and information to enable confirmation of work requirements and specifications and the reporting of work outcomes and problems, interpret basic plans and follow safety procedures
- Avoid backtracking, work flow interruptions or wastage
- Work with others and in a team by recognising dependencies and using cooperative approaches to optimise work flow and productivity

Knowledge Evidence

- State or territory WHS legislation, regulations, standards, codes of practice, organisational and site standards, requirements, policies and procedures relevant to the painting and firing of glass for leadlight and stained glass operations
- Glass painting and firing terminology and techniques
- Types of glass and other materials used in the leadlight and stained glass industry, their characteristics, properties, uses and limitations
- Types of vitreous paints, their characteristics, properties, uses and limitations
- Operation of glass firing kiln
- Characteristics and properties of glass when heat is applied

- Environmental protection requirements relating to the disposal of waste material
- Established communication channels and protocols
- Relevant problem identification and resolution
- Storage systems and labelling
- Procedures for the recording, reporting and maintenance of workplace records and information
- Appropriate mathematical procedures for estimation and measurement

Assessment Conditions

- Assessors must:
 - hold training and assessment competencies as determined by the National Skills Standards Council (NSSC) or its successors
 - have vocational competency in the furnishing industry at least to the level being assessed with broad industry knowledge and experience, usually combined with a relevant industry qualification
 - be familiar with the current skills and knowledge used and have relevant, current experience in the furnishing industry.
- Assessment methods must confirm consistency of performance over time rather than a single assessment event and in a range of workplace relevant contexts.
- Assessment must be by observation of relevant tasks with questioning on underpinning knowledge and, where applicable, multimedia evidence, supervisor's reports, projects and work samples.
- Assessment is to be conducted on single units of competency or in conjunction with other related units of competency. Foundation skills are integral to competent performance in the unit and should not be assessed separately.
- Assessment must occur on the job or in a workplace simulated facility with relevant process, equipment, materials, work instructions and deadlines.
- Access is required to materials, equipment and specifications relevant to painting glass with vitreous paints.

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