



Australian Government

Department of Education, Employment and Workplace Relations

LMFSL3003A Fire glass

Revision Number: 1

LMFSL3003A Fire glass

Modification History

Not applicable.

Unit Descriptor

Unit descriptor	This unit addresses the knowledge and skills required to achieve specific outcomes through the firing of glass
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Application of the Unit

Application of the unit	This unit supports the attainment of skills and knowledge required for competent workplace performance in leadlight and stained glass operations. The requirement to fire glass applies to a workshop environment and involves application of skills and knowledge at a tradesperson level. These skills and knowledge are to be used within the scope of the individual's job and authority.
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Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Prerequisite units	Nil	

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. Identify firing requirements	1.1. Applicable OHS, legislative and organisational requirements relevant to lead light and stained glass operations are verified and complied with 1.2. Types and quantities of materials required are identified from plans or work instructions 1.3. The process for achieving specific outcomes through the firing of glass is identified
2. Prepare to fire glass	2.1. Firing sequence is determined in a logical order to suit the job 2.2. Kiln, tools, equipment and materials are selected and checked prior to use to ensure that they are appropriate for the firing, serviceable and in a safe condition 2.3. Kiln components and controls including emergency stops and guards are identified and checked for correct operation 2.4. Glass is prepared for firing
3. Conduct firing operations	3.1. Kiln equipment is operated, adjusted and monitored to ensure correct product quality and output 3.2. Problems occurring during the firing operation are identified and rectified
4. Finalise the installation	4.1. Fired glass is inspected for quality of work and repaired or discarded as required 4.2. Waste and scrap material is removed for disposal/recycling as required 4.3. Work area is cleaned and rubbish disposed of as appropriate 4.4. Tools, equipment and unused materials are cleaned and removed and stored appropriately 4.5. Workplace records are maintained

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 materials technology and information related to the firing of glass
- communicate ideas and information to enable confirmation of work requirements and specifications, co-ordination of work with site supervisor, other workers and customers, and the reporting of work outcomes and problems
- maintain quality records related to firing of glass
- work with others and in a team by recognising dependencies and using co-operative approaches to optimise work flow and productivity
- identify, anticipate and respond to faults in the firing of glass
- recognise and respond to circumstances outside instructions or personal competence
- plan and organise activities, including the preparation and layout of own worksite and the obtaining and use of tools and materials to avoid any backtracking, work flow interruptions or wastage
- use mathematical ideas and techniques to correctly complete measurements, calculate area and volume, estimate work and material requirements
- clarify and confirm work instructions
- plan own work within the given task parameters
- accept responsibility for given tasks
- set, monitor and satisfy personal work goals
- satisfy the competency requirements for the job
- maintain current knowledge of tools and materials
- maintain current knowledge of firing of glass
- seek learning opportunities
- use the workplace technology related to the firing of glass including computers, measuring devices and recording systems

Required knowledge

- State or Territory OHS legislation, regulations, standards and codes of practice relevant to the full range of processes for lead light and stained glass firing operations
- glass firing terminology and techniques
- operation of glass firing kiln
- organisational and site standards, requirements, policies and procedures for the firing of glass
- types of glass and other materials used in the lead light and stained glass industry, their characteristics, properties, uses and limitations

REQUIRED SKILLS AND KNOWLEDGE

- characteristics and properties of semi-molten glass
- firing techniques to achieve specific outcomes
- environmental protection requirements relating to the disposal of waste material
- established communication channels and protocols
- 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

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.

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

- Read and interpret a work/job specification
- Identify a range of glass suitable for firing, detailing their uses and limitations
- Identify and explain the properties and limitations of semi-molten glass
- Identify the likely impact of various environmental effects on fired glass
- Fire glass 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
- Communicate effectively and work safely with others in the work area

Context of, and specific resources for assessment

- The application of competency is to be assessed in the workplace or realistically simulated workplace
- Assessment is to occur under standard and authorised work practices, safety requirements and environmental constraints
- Assessment of essential underpinning knowledge, other than confirmatory questions, will usually be conducted in an off-site context
- Assessment is to comply with relevant regulatory or Australian Standards requirements
- The following resources should be made available:
 - workplace location or simulated workplace
 - materials and equipment relevant to firing glass
 - specifications and work instructions

Method of assessment

Assessment must satisfy the endorsed assessment guidelines of the Furnishing Industry Training Package

Assessment methods must confirm consistency and accuracy of performance (over time and in a range of workplace relevant contexts) together with application of underpinning knowledge

Assessment methods must be by direct observation of tasks and include questioning on underpinning

EVIDENCE GUIDE

knowledge to ensure its correct interpretation and application

Assessment may be applied under project related conditions (real or simulated) and require evidence of process

Assessment must confirm a reasonable inference that competency is able not only to be satisfied under the particular circumstance, but is able to be transferred to other circumstances

Assessment may be in conjunction with assessment of other units of competency

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.

OHS requirements	are to be in accordance with Commonwealth, State or Territory legislation and regulations, organisational safety policies and procedures. Requirements may include but not be limited to the use of personal protective equipment and clothing, fire fighting equipment, First Aid equipment, hazard and risk control and elimination of hazardous materials and substances, manual handling including lifting and carrying
Legislative requirements	are to be in accordance with applicable legislation from all levels of government that affect organisational operation. Requirements may include but not be limited to award and enterprise agreements, industrial relations, Australian Standards, confidentiality and privacy, OHS, the environment, equal opportunity, anti-discrimination, relevant industry codes of practice, duty of care and heritage
Organisational requirements	may include but not be limited to legal, organisational and site guidelines, policies and procedures relating to own role and responsibility, quality assurance, procedural manuals, quality and continuous improvement processes and standards, OHS, emergency and evacuation, ethical standards, recording and reporting, access and equity principles and practices, equipment use, maintenance and storage, environmental management (waste disposal, recycling and re-use guidelines)
Materials	may include but are not limited to clear, coloured and painted glass, bedding sand, marking and masking materials.
Specific outcomes	may include glass staining and forming

RANGE STATEMENT	
Tools and equipment	may include firing kiln, work benches and general hand tools
Preparation	may include cleaning, marking and masking
Records	may include but not be limited to the product type, size, inspection, inspection outcomes, quality outcomes and storage locations

Unit Sector(s)

Unit sector	Lead Light and Stained Glass
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Competency field

Competency field	
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Co-requisite units

Co-requisite units		