



Australian Government

Department of Education, Employment and Workplace Relations

LMFSL3006B Prepare and install architectural engineered leadlight and stained glass

Release: 1

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Modification History

Updated format, revised Evidence Guide. Outcome equivalent.

Unit Descriptor

This unit of competency covers the skills and knowledge required to prepare and install leadlight and stained glass in structural and other architecturally engineered applications.

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 prepare and install leadlight and stained glass in structural and other architecturally engineered applications applies to a workshop and on-site 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.

Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Not applicable.

Employability Skills Information

This unit contains employability skills.

Elements and Performance Criteria Pre-Content

Updated format, revised Evidence Guide. Outcome equivalent.

Elements and Performance Criteria

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| 1 | Identify work requirements | 1.1 | Applicable <i>occupational health and safety (OHS)</i> , <i>legislative</i> and <i>organisational requirements</i> relevant to leadlight and stained glass operations are verified and complied with |
| | | 1.2 | Work requirements in the form of type of leadlight and stained glass, frames and the method of fixing are identified, confirmed and clarified with <i>appropriate personnel</i> |
| | | 1.3 | The process for preparing and installing <i>architecturally engineered leadlight and stained glass</i> is identified |
| 2 | Prepare <i>for installation</i> | 2.1 | Work sequence is determined in a logical order to suit the job |
| | | 2.2 | <i>Tools, equipment</i> and <i>materials</i> are selected and checked prior to use to ensure they are appropriate for the work, serviceable and in a safe condition |
| | | 2.3 | Components of the leadlight and stained glass are checked against specifications or job order |
| | | 2.4 | Leadlight and stained glass <i>fixing method</i> is selected |
| | | 2.5 | Frame or opening is <i>prepared</i> to receive leadlight and stained glass |
| | | 2.6 | Fixing and sealing materials are prepared by mixing or cutting to length, as appropriate |
| 3 | Identify site conditions and restraints | 3.1 | Site safety hazards are recognised and corrective action taken to <i>reduce risk of</i> injury to self and others |
| | | 3.2 | On-site difficulties are identified and addressed in accordance with regulations and enterprise agreements |
| | | 3.3 | Special characteristics of the leadlight and stained glass aperture are identified in relation to the effect of the |

- fitting process on the finished job
- 3.4 Covering material is applied, where necessary, to protect existing fixtures and fittings
- 4 Fit leadlight and stained glass
- 4.1 Leadlight and stained glass is fixed to the frame or opening using the selected method
- 4.2 Solvents and sealants are applied
- 4.3 Leadlight and stained glass and/or frame are cleaned after fixing
- 5 Finalise the installation
- 5.1 Completed installation is checked to ensure compliance
- 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

Required Skills and Knowledge

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

Required skills include:

- collecting, organising and understanding materials, technology and information related to architectural engineered leadlight and stained glass
- using communication skills to the level required to confirm work requirements and specifications; communicate effectively regarding work requirements with supervisors, other workers and customers; report work outcomes and problems; and relate to people from a range of social, cultural and ethnic backgrounds, and of varying physical and mental abilities
- using literacy skills to the level required to understand information related to work orders, including common industry terminology, plans and safety procedures; prepare reports; and interpret technical information and specifications
- maintaining quality records related to architectural engineered leadlight and stained glass
- working with others and in a team by recognising dependencies and using cooperative approaches to optimise workflow and productivity
- identifying, anticipating and responding to faults in architectural engineered leadlight and stained glass
- recognising and responding to circumstances outside instructions or personal competence
- planning and organising 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
- using mathematical ideas and techniques to correctly complete measurements, calculate area and volume, and estimate work and material requirements
- clarifying and confirming work instructions
- planning own work within the given task parameters
- accepting responsibility for given tasks
- setting, monitoring and satisfying personal work goals
- maintaining current knowledge of tools and materials
- maintaining current knowledge of architectural engineered leadlight and stained glass
- seeking learning opportunities
- using the workplace technology related to the installation of architectural engineered leadlight and stained glass components, including computers, measuring devices and recording systems

Required knowledge includes:

- state or territory OHS legislation, regulations, standards and codes of practice relevant to the

full range of processes for leadlight and stained glass operations

- architectural leadlight and stained glass construction terminology and techniques
- organisational and site standards, requirements, policies and procedures for preparation and installation of architectural leadlight and stained glass
- types of glass and other materials used in the leadlight and stained glass industry, their characteristics, properties, uses and limitations
- 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

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	Assessment processes and techniques must be culturally appropriate and appropriate to the language, literacy and numeracy capacity of the candidate and the work being performed.
Critical aspects for assessment and evidence required to demonstrate competency in this unit	Assessors must be satisfied that the candidate can competently and consistently: • read and interpret work/job specifications • identify a range of structural leadlight and stained glass, detailing their uses and limitations • identify and explain the properties of structural leadlight and stained glass • identify the likely impact of various environmental effects on architectural leadlight and stained glass • prepare and install an architecturally engineered leadlight and stained glass installation • comply with legislation, regulations, standards, codes of practice and established safe practices and procedures for structural leadlight and stained glass • 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 Standard requirements. The following resources should be made available: • workplace location or simulated workplace • materials and equipment relevant to installing structural leadlight and stained glass • specifications and work instructions.
Method of assessment	Assessment must satisfy the endorsed Assessment Guidelines of the LMF02 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 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.
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Guidance information for assessment

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.

<i>OHS requirements</i> are to be in accordance with:	• Commonwealth, state or territory legislation and regulations, organisational safety policies and procedures. Requirements may include, but are not 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
<i>Legislative requirements</i> are to be in accordance with:	• applicable legislation from all levels of government that affect organisational operation. Requirements may include, but are not limited to: • award and enterprise agreements • industrial relations • Australian Standards • confidentiality and privacy • OHS requirements • the environment • equal opportunity • anti-discrimination • relevant industry codes of practice • duty of care and heritage
<i>Organisational requirements</i> may include, but are not 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 procedures

	• 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 reuse guidelines)
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<i>Appropriate personnel</i> may include, but are not limited to:	• architects • engineers • supervisors • suppliers • clients • colleagues • managers
<i>Architecturally engineered leadlight and stained glass</i> may include:	• the on-site installation of leadlight and stained glass for structural and other architecturally engineered applications, including but not limited to: • curtain walls • infill and structural balustrade • suspended and overhead glass • toughened glass assemblies • aluminium systems, including planar assemblies • curtain wall systems • spider assemblies • panel wall systems (hung and stacked) • watertight glazing techniques, including the use of silicone
<i>Tools and equipment</i> may include:	• assembly benches • drop and up-cut saws • pneumatic, hydraulic and manual presses • lifting equipment • frame tooling • copy routers • end millers • crimpers • electric and pneumatic powered drills and screwdrivers • pop rivet guns • glue guns • general hand tools
<i>Materials</i> may include, but are not limited to:	• glass: • leadlight or stained glass panels • annealed glass • safety glass • patterned glass • tinted • heat reflective and insulated glass units • steel

	• fasteners • plastics • sealants • tapes • vinyls • gaskets • timber reveals • flashings
Fixing method will be dependent on:	• technical specification • type of glass and frame • security requirements • sealing methods • relevant Australian Standards
Preparation may include:	• cleaning • surface preparation (if required) • checking size against specification
Records may include, but are not limited to:	• the product type • size • inspection • inspection outcomes • quality outcomes • storage locations

Unit Sector(s)

Leadlight and stained glass

Custom Content Section

Not applicable.