Australian Government

Department of Education, Employment and Workplace Relations

LMFGG2004C Process thin glass by hand

Release: 1

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Modification History

Updated format, changed glass thickness definition to ‘up to maximum 8 mm thick’, revised Evidence Guide. Outcome equivalent

Unit Descriptor

Not applicable.

Application of the Unit

Not applicable.

Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Not applicable.

Employability Skills Information

Not applicable.

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.

Elements and Performance Criteria

1	Identify work requirements	1.1	***Work requirements***, including ***materials***, types of cuts, shapes, holes and edges, processes and quantities required, are identified from work instructions or job order in accordance with ***workplace procedures***
		1.2	***Occupational health and safety (OHS)requirements***, including ***personal protective equipment***, are observed throughout the work
		1.3	***Tools, equipment*** and ***thin glass*** materials are selected and checked prior to use to ensure they are appropriate for the work, serviceable and in a safe condition
		1.4	Cutting list and quality standards are determined and procedures identified in accordance with workplace requirements and industry standards
		1.5	Glass to be cut, holes drilled or shaped ***by hand*** are selected using information from the work order, including type of glass, thickness, colour and dimensions
		1.6	Equipment and settings required to perform the work are identified and prepared
2	Prepare for work	2.1	Sequence of work is planned to ensure processing is conducted in a logical order
		2.2	Suitable cutting, shaping and lubrication methods are selected
		2.3	Glass processing table is selected and work surface is cleared of debris and dust
		2.4	Work area is cleared of obstructions and potential hazards with cullet bins located close to work area
		2.5	Glass is checked for imperfections and damage prior to handling
		2.6	Glass to be processed is located in the work area using correct manual handling procedures
		2.7	Glass is measured accurately to minimise waste and within specified tolerances according to enterprise standards

3	Process glass	3.1	Tools and equipment are operated and monitored in accordance with manufacturer instructions and workplace procedures to ensure correct product quality and output
		3.2	**Glass is processed to required standard in accordance with job order, work instructions and procedures, including the performance of routine lubrication and adjustments of tools/equipment**
		3.3	Problems occurring during work operations are identified and reported to appropriate persons
		3.4	Authorised changes in working procedures are followed
		3.5	Completed product is inspected for quality of work and repaired, reprocessed or discarded in accordance with workplace procedures
4	Complete work	4.1	Processed glass is labelled and stored following workplace procedures ensuring there are no projections
		4.2	Scraps and off-cuts are removed for disposal or recycling, as required
		4.3	Work area is cleaned and rubbish disposed of as appropriate
		4.4	Workplace documentation is completed, as required
		4.5	Tools, equipment and unused materials are removed and stored appropriately

Required Skills and Knowledge

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

Required skills include:

- collecting, organising and understanding information skills related to work orders, basic plans and safety procedures
- 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
- 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
- planning and organising skills for activities, including the preparation and layout of the work area, and obtaining equipment and materials to avoid any backtracking, workflow interruptions or wastage
- working with others and in a team by recognising dependencies and using cooperative approaches to optimise workflow and productivity
- using mathematical ideas and techniques to correctly complete measurements, calculate area, estimate glass requirements and minimise waste
- using pre-checking and inspection techniques to anticipate processing problems, and avoid re-working and wastage
- using the limited workplace technology related to the processing

Required knowledge includes:

- the qualities and characteristics of glass, including hazards and handling requirements
- correct identification and use of glass cutting equipment, their functions and procedures for use
- the set-up and operation of glass cutting equipment, including procedures for reporting product defects or equipment faults
- workplace safety system requirements related to glass cutting
- workflow requirements in relation to glass cutting

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:
	• interpret work orders correctly and plan processing operations
	• identify the materials, patterns/plans, processes, machines, equipment and settings to undertake a glass processing task
	• apply AS/NZS 4667:2000 Quality requirements for cut-to-size and processed glass
	• apply safe handling requirements for equipment, products and materials, including use of personal protective equipment
	• efficiently set up for and prepare to process glass
	• follow work instructions, operating procedures and inspection practices to:
	  • minimise the risk of injury to self and others
	  • prevent damage to goods, equipment and products
	  • maintain required production output and product quality
	• as a minimum, demonstrate the ability to:
	  • identify and use AS/NZS 4667:2000 Quality requirements for cut-to-size and processed glass
	  • complete straight cuts by hand and speed cutter and cut simple shapes, truncated and radius corners, circles, fan holes and freehand pay holes in annealed up to and including 6 mm and up to 1.0 m2
	  • complete straight cuts by hand and speed cutter
	  • cut simple shapes, truncated corners and ovals in laminated glass up to 7 mm and up to 1.0 m2

	• calculate the cost of glass • working effectively with others • modifying activities to cater for variations in workplace contexts and environment.
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: • glass sheet/product • cutting equipment, such as hand glass cutter, circle cutter and speed cutter • table • work area • work orders • appropriate safety and personal protective equipment.
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 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.
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.

Work requirements **may include:**	• work carried out in accordance with statutory requirements, environment legislation, manual handling procedures and relevant regulations and organisation insurance requirements • work requiring individuals to demonstrate discretion, judgement and problem-solving skills in the planning, preparation and processing of thin glass
Materials **are to include, but are not limited to:**	• annealed and laminated glass for residential and commercial glazing • furniture applications and mirrors
Workplace procedures **may include:**	• the use and operation of tools and equipment required for the handling and processing of glass • workplace instructions, including job sheets, cutting lists, plans, drawings and designs • enterprise reporting and communications • manufacturer instructions for the use of equipment and materials • AS/NZS 4667:2000 Quality requirements for cut-to-size and processed glass
OHS requirements **may include:**	• legislation, Australian Standard and building codes • material safety management systems • hazardous substances and dangerous goods codes • local safe operating procedures
Personal protective equipment is to include:	• that prescribed under legislation, regulation and Australian Standard policies and practices, and may include: • gloves • safety glasses • gauntlets • footwear • earmuffs • aprons and overalls
Tools and equipment **may include:**	• flat felt covered cutting tables • tungsten wheel glass cutters

	• speed cutters • circle cutters • L-squares and straight edges • tape measures • glass handling gloves • safety glasses • gauntlets • aprons • marking pens • chinagraph pencils • templates and lubricants • tables appropriate for cutting glass sheets, including mobile air floatation tables • roller castor tables or tilt tables with air flotation and breaker bars
***Thin glass* is:**	• annealed sheet glass less than or equal to 7 mm thick and can include mirrors • laminated glass less than or equal to 6.38 mm thick
Glass processing *by hand* includes:	• cutting • shaping

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Unit Sector(s)

Glass and glazing

Custom Content Section

Not applicable.