



Australian Government

MSFGG3027 Toughen glass

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Modification History

Release	Comments
2	This unit of competency was first released in MSF Furnishing Training Package Release 9.1. Minor change to remove bullet point 'laminated glass' from the Performance Evidence.
1	This unit of competency was first released in MSF Furnishing Training Package Release 4.0.

Application

This unit describes the skills and knowledge required to set up, operate, monitor and maintain glass toughening equipment.

This unit applies to glass processing workers toughening glass in accordance with pre-determined work orders.

No licensing or certification requirements exist at the time of publication. Relevant legislation, industry standards and codes of practice within Australia must be applied.

Licensing/Regulatory Information

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

Pre-requisite unit(s)

No prerequisite units.

Competency field(s)

N/A

Unit sector(s)

Glass and Glazing

Elements and Performance Criteria

Elements	Performance criteria
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<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare for work	1.1 Read work instructions and identify job and quality requirements 1.2 Identify and follow work health and safety requirements, using all required personal protective equipment 1.3 Identify quality procedures for each stage of the process 1.4 Plan work sequence in a logical order to suit the job and workplace procedures 1.5 Establish and maintain communication with others involved with the work to ensure efficient work flow coordination, personnel cooperation and safety
2. Set up equipment	2.1 Complete pre-operational equipment checks in accordance with workplace procedures 2.2 Confirm machine operation through quality checks on first production of finished items 2.3 Make adjustments to settings and parameters based on initial quality checks
3. Conduct glass toughening operations	3.1 Prepare glass to be toughened for process in accordance with workplace procedures 3.2 Position glass to be toughened on furnace load table and stamp with product identification in accordance with workplace procedures 3.3 Load glass into furnace in accordance with manufacturer instructions and workplace procedures 3.4 Monitor furnace operation and make adjustments, as required, in accordance with manufacturer instructions or workplace procedures 3.5 Identify and report problems occurring during work operations to appropriate persons 3.6 Follow correct furnace shutdown and end of shift procedures in accordance with manufacturer instructions and workplace procedures
4. Complete work and maintain equipment	4.1 Inspect completed product for compliance with quality and work order requirements and accept or reject in accordance with workplace procedures 4.2 Place completed work in holding area in accordance with workplace procedures

	4.3 Unload glass from furnace in accordance with manufacturer instructions and workplace procedures 4.4 Clean work area and safely dispose of rubbish 4.5 Inspect, maintain and tag equipment in accordance with workplace procedures 4.6 Remove and store tools, equipment and unused materials in accordance with workplace procedures 4.7 Accurately complete required workplace documentation
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Foundation Skills

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of conditions

No conditions apply to this unit of competency at the time of publication.

Unit Mapping Information

Current Code and Title	Previous Code and Title	Comments	Equivalence
MSFGG3027 Toughen glass	MSFGG3011 Set up and operate glass toughening equipment		Equivalent

Assessment Requirements for MSFGG3027 Toughen glass

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Performance Evidence

There must be evidence the candidate has completed the tasks outlined in the elements and performance criteria of this unit, and:

- completed processing for all of the following at least once:
 - multiple thicknesses of annealed glass
 - heat-strengthened glass.

Knowledge Evidence

There must be evidence the candidate has knowledge of:

- purpose and key provisions of Australian Standard AS/NZS 2208 – testing requirements
- workplace safety system requirements for the operation of glass toughening equipment
- work flow requirements for the operation of glass toughening equipment, including how the process fits into the overall glass processing system
- the role and importance of communication with others in relation to quality and safety
- mathematical procedures for measurement and fault investigation
- common items found in work instructions for glass toughening:
 - material to be used
 - number of sheets to be toughened and holding area for completed items
 - process required to complete work tasks
 - required machine settings and adjustments
- characteristics of materials used and uses of products produced in the glass toughening process:

- clear glass
 - coated glass
 - low E glass
 - tinted and patterned annealed glass
- features of the glass toughening process, including the principles, purpose and properties of toughened glass
- types, characteristics, safe use, maintenance and limitations of glass toughening equipment
- toughening furnaces and their component parts
- procedures for each step of the toughening process, the types of problems that may occur and how to avoid and respond
- quality indicators for toughened glass
- procedures for the recording, reporting and maintenance of workplace records and information.

Assessment Conditions

Skills must have been demonstrated in the workplace or in a simulated environment that reflects workplace conditions and contingencies. The following conditions must be met for this unit:

- use of suitable facilities, equipment and resources, including:
 - equipment, tools and materials to complete tasks in the Performance Evidence
 - glass product to be toughened
 - safety and personal protective equipment
 - work orders
 - workplace procedures.

Assessors must satisfy the NVR/AQTF mandatory competency requirements for assessors.

Link

Companion volumes, including implementation guides, are found on the national training register - <https://training.gov.au/training/details/MSF>.