



Australian Government

Department of Education, Employment and Workplace Relations

PMC552021C Operate manual glazing equipment

Revision Number: 1

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Modification History

Not applicable.

Unit Descriptor

Unit descriptor	This unit of competency covers the operation of manual glazing and decorating equipment used for clay and ceramic product production.
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Application of the Unit

Application of the unit	This unit of competency applies to operators who are responsible for operating glazing, printing and finishing equipment to complete fired products. This unit was developed for larger production contexts but it may also be relevant to craft practitioners producing ceramic work. It does NOT include: • product forming and drying • product firing • setting up automated glazing equipment. This competency is typically performed by operators working either independently or as part of a team.
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Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Prerequisite units		

Prerequisite units		

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. Prepare glazing and decorating equipment	1.1. Determine glazing and decorating requirements from production schedule 1.2. Adjust equipment as required 1.3. Connect glaze or surface materials to glazing and decorating equipment 1.4. Check equipment operation and safety specifications
2. Apply glaze or surface materials to formed products	2.1. Set up glaze application for operation 2.2. Apply glaze to produce the specified thickness 2.3. Recover excess or spilt glaze for treatment or recycling 2.4. Shut down and unload equipment at conclusion of glazing to procedures, ensuring that products are stored in the appropriate area
3. Print fired products	3.1. Operate printing equipment to produce a correctly registered decoration 3.2. Report printing equipment faults to the designated person 3.3. Shut down and unload equipment at conclusion of printing to specifications, ensuring that products are stored in the appropriate area
4. Repair glaze faults	4.1. Apply glaze repair techniques to produce a properly finished product 4.2. Remove all glaze faults 4.3. Reglaze repaired area with the specified glaze 4.4. Clear work area at the conclusion of the glaze repairing to procedures 4.5. Store products in the appropriate area
5. Rectify routine problems	5.1. Identify the range of faults that can occur during the operation 5.2. Determine and rectify fault causes according to procedures 5.3. Identify and rectify equipment failure causes according to procedures 5.4. Complete appropriate records and log books of equipment operations to meet procedures 5.5. Identify non-routine problems and report to designated person
6. Control hazards	6.1. Identify hazards from the job to be done

ELEMENT	PERFORMANCE CRITERIA
	6.2. Identify other hazards in the work area 6.3. Assess the risks arising from those hazards 6.4. Implement measures to control those risks in line with procedures

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

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

Required skills

Required skills include:

- recognising conditions which will lead to out of specification product and taking appropriate action
- implementing enterprise's procedures and relevant regulatory requirements within time constraints and in a manner relevant to the operation of the glazing and decorating equipment
- reading and numeracy to interpreting workplace documents and technical information

Required knowledge

Required knowledge includes:

- glaze composition and function
- decal construction and application techniques
- glaze application techniques (including hand dipping and spraying)
- distinguish between causes of problems such as:
 - product surface condition
 - equipment problems
 - glaze properties

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.

Overview of assessment

The unit will be assessed in as holistic a manner as is practical and may be integrated with the assessment of other relevant units of competency.

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

Competence must be demonstrated in the ability to recognise situations requiring action and then in implementing appropriate corrective action. Consistent performance should be demonstrated. In particular look to see that:

- glaze application is within requirements
- equipment is used as required
- glazing faults are recognised and categorised correctly.

Context of and specific resources for assessment

Assessment will require access to an operating plant over an extended period of time, or a suitable method of gathering evidence of operating ability over a range of situations.

Assessment will occur over a range of situations which will include disruptions to normal, smooth operation.

Simulation or case studies/scenarios may be required to allow for timely assessment of parts of this unit of competency. Simulation should be based on the actual plant and will include 'walk-throughs' of the relevant competency components. A bank of scenarios/case studies/what ifs and questions will be required to probe the reasoning behind observable actions.

Method of assessment

Individual enterprises may choose to add prerequisites and co-requisites relevant to their processes.

Guidance information for assessment

Assessment processes and techniques must be culturally appropriate and appropriate to the language and literacy capacity of the candidate and the work being performed.

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.

Procedures	All operations are performed in accordance with standard procedures and work instructions
Products	Products may include: • cups, saucers • tiles • bricks • sanitary ware • bathroom fittings • insulators
Equipment	Equipment may include: • belt feed hopper • dipping equipment • hand spray equipment • screen printers • silk screens • vibrating hoppers
Processes	Processes may include: • decorating • dry glaze/material • glaze fault repair • manual dip • manual spray • oversand spraying • reglaze (repaired products) • silk screen printing • waterfall/flinger/bell • wet glaze/material
Materials	Materials may include: • artwork • colours

RANGE STATEMENT	
	• cover coat • dry glaze dusts • frits • glazed products • liquid glaze • paints • sand • slurry
Typical problems	Typical problems may include: • glaze application faults (e.g. non-adherence or runs) • applicator equipment problems • product surface unsuitable for glaze application • glaze consistency • contamination
Occupational health and safety (OHS)	All operations are subject to stringent OHS requirements and these must not be compromised at any time. Where there is an apparent conflict between performance criteria and OHS requirements, the OHS requirements take precedence

Unit Sector(s)

Unit sector	Operational/technical
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Competency field

Competency field	
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Co-requisite units

Co-requisite units		