



Australian Government

PMC20110 Certificate II in Manufactured Mineral Products

Release 2

PMC20110 Certificate II in Manufactured Mineral Products

Modification History

Release 2 - Imported units updated to current versions. No change in outcomes.

Release 1 - Initial release

Description

This qualification covers the skills and knowledge required to perform a range of process operations within the manufactured mineral products industries.

Job roles/employment outcomes

The Certificate II in Manufactured Mineral Products is intended for competent operators who operate production equipment or undertake similar roles directly producing products. The operator would apply a breadth and depth of knowledge to a defined range of situations and would be expected to apply this knowledge to solve a defined range of problems by applying known solutions to a limited range of predictable problems.

Application

This qualification is typically used to prepare new employees or develop existing workers performing an operational role in the production of manufactured mineral products.

Operators may specialise in one of the following sectors:

- cement
- precast concrete products
- premixed concrete
- clay products
- ceramic products
- float (flat) glass
- glass containers
- refractories
- plaster (both fibrous plaster and plaster boards)
- fibre cement boards and other products
- ground minerals
- abrasive grinding wheels and cutting discs
- other related areas.

Specialisations must be reflected by the selection of units identified for specialised streams.

Training programs for this qualification are suitable to be undertaken as part of a formal training contract with an employer under an Australian Traineeship or Apprenticeship arrangement.

Pathways into the qualification

This qualification may be accessed by direct entry. Credit may be granted towards this qualification by those who have completed MSA10207 Certificate I in Process Manufacturing in the MSA07 Manufacturing Training Package or other relevant qualifications. Credit for this qualification may also include units contained within relevant skill sets.

Pathways from the qualification

Further training pathways from this qualification include PMC30110 Certificate III in Manufactured Mineral Products, MSA30107 Certificate III in Process Manufacturing, MSA30208 Certificate III in Manufacturing Technology, MSS30312 Certificate III in Competitive Systems and Practices or other relevant qualifications.

Additional qualification advice

An industry specialisation should include a range of units (typically production or other units relevant to the specialisation) that focus more on the industry speciality than a generic qualification.

An industry specialisation does not change the title of the qualification although RTOs may choose to record the specialisation.

MSA20107 Certificate II in Process Manufacturing from the MSA07 Manufacturing Training Package is available for production support employees at this level and should be used where the job requirements do not allow for the development of competency in sufficient technical units of competency.

MSS20312 Certificate II in Competitive Systems and Practices is available for employees at this level who already possess technical skills and who require additional manufacturing practice skills above those available in this qualification.

Pathways Information

Not applicable.

Licensing/Regulatory Information***Licensing considerations***

There are no specific licences that relate to this qualification. However, some units in this qualification may have licensing or regulatory requirements. Local regulations should be checked for details.

Entry Requirements

Not applicable.

Employability Skills Summary

Employability Skill	Industry/enterprise requirements for this qualification
Communication	<ul style="list-style-type: none"> • maintain communication about work related subjects and with appropriate audiences • complete required workplace forms reports • use technical information and workplace procedures • collect and organise information • communicate ideas and information • use workplace documentation • maintain workplace records
Teamwork	<ul style="list-style-type: none"> • identify and describe own role and role of others • work within a team • teamwork strategies
Problem solving	<ul style="list-style-type: none"> • recognise a problem or a potential problem • determine problems needing priority action • refer problems outside area of responsibility to appropriate person • identify appropriate theory base for problem • solve problems within area of responsibility • follow through items initiated until final resolution has occurred • identify and isolate faults in equipment • use simple formal problem solving techniques
Initiative and enterprise	<ul style="list-style-type: none"> • identify the required process conditions for equipment • determine problems needing action • suggest required action • report problems outside area of responsibility • distinguish between causes of faults
Planning and organising	<ul style="list-style-type: none"> • prioritise actions to achieve required outcomes • plan own work requirements • plan and organise activities • identify tasks to achieve team goals • monitor completion of allocated tasks
Self-management	<ul style="list-style-type: none"> • plan own work requirements from job requests • operate within appropriate time constraints and work standards • select and use appropriate equipment, materials, processes and procedures • plan to ensure effective production • apply standard procedures • identify resource requirements • recognise limitations and seek timely advice

Learning	<ul style="list-style-type: none"> ask questions to clarify information identify sources of information required for job participate in improvement procedures participate in development of continuous improvement strategies
Technology	<ul style="list-style-type: none"> operate equipment start up and shut down equipment monitor quality function and operating principles of equipment maintain workplace records

Packaging Rules

Packaging Rules

To be awarded the Certificate II in Manufactured Mineral Products competency must be achieved in **fifteen (15)** units of competency:

- six (6)** core units of competency
- nine (9)** elective units of competency from Groups A and B, as specified below.

Note

Where prerequisite units apply, these must be considered in the total number of units chosen.

Core units of competency

Select **six (6)** core units of competency as specified below.

All **five (5)** of these units must be chosen.

Unit code	Title	Prerequisites
MSAENV272B	Participate in environmentally sustainable work practices	
MSAPMOHS200A	Work safely	
MSAPMSUP100A	Apply workplace procedures	
MSAPMSUP101A	Clean workplace or equipment	
MSAPMSUP102A	Communicate in the workplace	

Select **one (1)** of the following units. Note that only MSAPMOPS101A **OR** PMAOPS101C may be included in this qualification, not both.

Unit code	Title	Prerequisites
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Unit code	Title	Prerequisites
MSAPMOPS101A	Make measurements	
PMAOPS101C	Read dials and indicators	

Elective units of competency**Group A - Specialist electives**

A minimum of **two (2)** specialist elective units must be chosen from the list below.

Unit code	Title	Prerequisites
MSAPMOPS200A	Operate equipment	
MSAPMOPS212A	Use enterprise computers or data systems	
MSAPMSUP230A	Monitor process operations	
PMAOPS216B	Operate local control system	
PMC552002C	Operate equipment to blend/mix materials	
PMC552003C	Operate grinding equipment	
PMC552004C	Prepare for production	
PMC552005C	Process greenware/green products	
PMC552006C	Operate an autoclave	
PMC552007B	Heat accelerate the curing of precast concrete	
PMC552008B	Operate crushing equipment	
PMC552010C	Operate a calcining kiln	
PMC552020C	Operate slip casting equipment	
PMC552021C	Operate manual glazing equipment	
PMC552022C	Prepare materials for clay and ceramic production	
PMC552023C	Finish products after firing	
PMC552024C	Hand mould products	

Unit code	Title	Prerequisites
PMC552030C	Operate a firing kiln	
PMC552031C	Operate extrusion equipment	
PMC552032C	Operate pressing equipment	
PMC552040C	Operate glass melting process	
PMC552041C	Operate process ovens	
PMC552042C	Operate blown insulation equipment	
PMC552043C	Operate float forming equipment	
PMC552044C	Operate fibre forming equipment	
PMC552045C	Operate container forming equipment	
PMC552046C	Operate glass printing equipment	
PMC552047C	Operate primary annealing equipment	
PMC552048C	Operate glass finishing equipment	
PMC552049C	Operate on-line stacking and assembly equipment	
PMC552050C	Schedule, cut and bend reinforcement	
PMC552051C	Finish green concrete products	
PMC552052C	Cast moulded concrete products	
PMC552053C	Finish cured concrete products	
PMC552054C	Spin concrete pipes	
PMC552055C	Conduct benching operations	
PMC552056B	Assemble, fabricate and place reinforcement	
PMC552057B	Finish casting operation	
PMC552058B	Demould concrete products	
PMC552060C	Batch mix concrete	

Unit code	Title	Prerequisites
PMC552061C	Deliver concrete to site	
PMC552065B	Prepare asphalt	
PMC552070B	Operate forming equipment	
PMC552071B	Operate wet and dry end equipment	
PMC552072B	Produce fibrous plasterboard	
PMC552090B	Use and maintain tools and equipment for refractory operations	
PMC552091B	Prepare for, install and repair refractory brickwork/blockwork	
PMC552092B	Prepare for and install mouldable refractory materials	
PMC552093B	Prepare for and cast refractory materials	
PMC552094B	Prepare for and apply shotcrete for installation	
PMC552095B	Prepare for, install and repair ceramic fibre	
Up to one (1) specialist elective unit may be chosen from Group A of PMC30110 Certificate III in Manufactured Mineral Products.		

Group B - Other electives

The balance of units, to a maximum of **seven (7)**, may be drawn in any combination from:

- units not already chosen from Group A above
- Group B units listed below

Unit code	Title	Prerequisites
RIIRIS201B	Conduct local risk control	
MSS402030A	Apply cost factors to work practices	
MSS402031A	Interpret product costs in terms of customer requirements	
MSS402040A	Apply 5S procedures	

Unit code	Title	Prerequisites
MSS402050A	Monitor process capability	
MSS402051A	Apply quality standards	
MSS402060A	Use planning software systems in operations	
MSS402080A	Undertake root cause analysis	
MSS402081A	Contribute to the application of a proactive maintenance strategy	
MSAPMOHS110A	Follow emergency response procedures	
MSAPMOPS100A	Use equipment	
MSAPMPER200C	Work in accordance with an issued permit	
MSAPMPER201A	Monitor and control work permits	
MSAPMPER202A	Observe permit work	
MSAPMPER205C	Enter confined space	
MSAPMSUP106A	Work in a team	
MSAPMSUP200A	Achieve work outcomes	
MSAPMSUP201A	Receive or despatch goods	
MSAPMSUP210A	Process and record information	
MSAPMSUP240A	Undertake minor maintenance	
MSAPMSUP280A	Manage conflict at work	
MSAPMSUP292A	Sample and test materials and product	
MSL952001A	Collect routine site samples	
PMAOPS105C	Select and prepare materials	
PMBHAN103C	Shift materials safely by hand	
PMC561072C	Store materials for production	
PMC561080B	Organise self	

Unit code	Title	Prerequisites
PMC562070B	Move materials	
PMC562071C	Operate bulk materials handling equipment	
PMC562075B	Maintain kiln refractory	
PMC562081B	Deliver customer service	
PMC562083C	Allocate and complete team tasks	
TLIC3003A	Drive medium rigid vehicle	
TLIC3004A	Drive heavy rigid vehicle	
TLID2010A	Operate a forklift	
<p>Note: Only one of TLIC3003A or TLIC3004A may be included in this qualification, not both.</p> <p>Up to four (4) relevant units may be selected from this Training Package, other endorsed Training Packages and accredited courses, where those units are available at Certificate II or III.</p>		