

**Victorian Purchasing Guide
for
PMC10 Manufactured Mineral Products Training
Package Version No 1**

May 2010





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Victorian Purchasing Guide — Version History

Training Package Version	Date VPG Approved	Comments
1	26/05/2010	This Victorian Purchasing Guide reflects the initial release of the PMC10 Manufactured Minerals Training Package and replaces PMC04.

PMC10 Manufactured Mineral Products Training Package Victorian Purchasing Guide

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INTRODUCTION

What is a Victorian Purchasing Guide?

The Victorian Purchasing Guide provides information for use by Registered Training Organisations (RTOs) in the provision of Victorian government subsidised training.

Specifically the Victorian Purchasing Guide provides the following information related to the delivery of nationally endorsed Training Packages in Victoria:

- The nominal hour range (minimum-maximum) available for each qualification.
- Nominal hours for each unit of competency within the Training Package.
- Sample Training Programs

Registration

RTOs must be registered by either the Victorian Registration and Qualifications Authority (VRQA) or the Australian Skills Qualification Authority (ASQA) regulatory body to be eligible to issue qualifications and statements of attainment under the Australian Quality Framework (AQF).

The VRQA is the regulatory authority for Victoria that registers VET training organisations who provide courses to domestic students only and who only offer training in Victoria.

To register to provide training to international students and in other Australian states and territories you will need to apply with ASQA.

QUALIFICATIONS

Code	Title	Qualification Nominal Hour Range	
		Minimum	Maximum
PMC20110	Certificate II in Manufactured Mineral Products	315	600
PMC30110	Certificate III in Manufactured Mineral Products	420	1010
PMC40110	Certificate IV in Manufactured Mineral Products	485	1305
PMC50110	Diploma of Manufactured Mineral Products	360	620
PMC60110	Advanced Diploma of Manufactured Mineral Products	630	970
PMC70110	Vocational Graduate Certificate in Refractories Engineering	410	530

UNITS OF COMPETENCY AND NOMINAL HOURS

RTOs are advised that there is a mapping inside the Training Package that describes the relationship between new units and superseded or replaced units from the previous version of PMC10 Manufactured Mineral Products Training Package. Information regarding transition arrangements can be obtained from the state or national VET Regulating Authority (see Contacts and Links section).

You must be sure that all training and assessment leading to qualifications or Statements of Attainment from the Training Package is conducted against the Training Package units of competency and complies with the requirements in the assessment guidelines.

Listing of the Units of Competency and Nominal Hours

Unit Code	Unit Title	Nominal Hours
PMC552002C	Operate equipment to blend/mix materials	40
PMC552003C	Operate grinding equipment	40
PMC552004C	Prepare for production	30
PMC552005C	Process greenware/green products	20
PMC552006C	Operate an autoclave	30
PMC552007B	Heat accelerate the curing of precast concrete	60
PMC552008B	Operate crushing equipment	40
PMC552010C	Operate a calcining kiln	30
PMC552020C	Operate slip casting equipment	40
PMC552021C	Operate manual glazing equipment	30
PMC552022C	Prepare materials for clay and ceramic production	30
PMC552023C	Finish products after firing	20
PMC552024C	Hand mould products	30
PMC552030C	Operate a firing kiln	30
PMC552031C	Operate extrusion equipment	30
PMC552032C	Operate pressing equipment	40
PMC552040C	Operate glass melting process	50
PMC552041C	Operate process ovens	40
PMC552042C	Operate blown insulation equipment	50
PMC552043C	Operate float forming equipment	50
PMC552044C	Operate fibre forming equipment	50
PMC552045C	Operate container forming equipment	40
PMC552046C	Operate glass printing equipment	40
PMC552047C	Operate primary annealing equipment	50
PMC552048C	Operate glass finishing equipment	40
PMC552049C	Operate on-line stacking and assembly equipment	40
PMC552050C	Schedule, cut and bend reinforcement	40
PMC552051C	Finish green concrete products	40
PMC552052C	Cast moulded concrete products	40
PMC552053C	Finish cured concrete products	40

Unit Code	Unit Title	Nominal Hours
PMC552054C	Spin concrete pipes	40
PMC552055C	Conduct benching operations	40
PMC552056B	Assemble, fabricate and place reinforcement	30
PMC552057B	Finish casting operation	20
PMC552058B	Demould concrete products	20
PMC552060C	Batch mix concrete	40
PMC552061C	Deliver concrete to site	30
PMC552065B	Prepare asphalt	40
PMC552070B	Operate forming equipment	40
PMC552071B	Operate wet and dry end equipment	50
PMC552072B	Produce fibrous plasterboard	30
PMC552090B	Use and maintain tools and equipment for refractory operations	30
PMC552091B	Prepare for, install and repair refractory brickwork/blockwork	40
PMC552092B	Prepare for and install mouldable refractory materials	40
PMC552093B	Prepare for and cast refractory materials	40
PMC552094B	Prepare for and apply shotcrete for installation	40
PMC552095B	Prepare for, install and repair ceramic fibre	40
PMC553000C	Set up and tune a process	50
PMC553010C	Process raw meal into product	40
PMC553020C	Prepare moulds and dies	40
PMC553021C	Set up and tune glazing equipment	50
PMC553040C	Set up and optimise glass forming process	80
PMC553041C	Set up and optimise glass furnace process	80
PMC553042C	Set up and optimise secondary process	40
PMC553050C	Produce architectural precast concrete	50
PMC553051B	Produce structural precast concrete	60
PMC553070B	Design and construct moulds for fibrous plaster products	40
PMC553072B	Model fibrous plaster products	60
PMC553080B	Set up and optimise finishing process	30
PMC554020D	Design and prepare models, moulds and dies	40
PMC554090B	Undertake simple refractory design	40
PMC554091B	Analyse refractory failures	30
PMC555030C	Analyse equipment performance	50
PMC555031B	Choose materials for an application	50
PMC556031C	Design structural/mechanical components	60
PMC557001A	Manage trials	40
PMC557090A	Select refractory materials for an application	50
PMC557091A	Design a refractory lining	50
PMC557092A	Specify and interpret refractory tests	40

Unit Code	Unit Title	Nominal Hours
PMC557093A	Design a refractory/ceramic component	40
PMC557094A	Investigate refractory failures	40
PMC557095A	Specify and monitor the installation of monolithic/castable refractories	40
PMC557096A	Specify and monitor the installation of block/precast refractories	40
PMC557097A	Specify and monitor repairs to refractory installations	40
PMC557098A	Specify refractory installation systems	40
PMC561072C	Store materials for production	20
PMC561080B	Organise self	20
PMC562070B	Move materials	30
PMC562071C	Operate bulk materials handling equipment	30
PMC562075B	Maintain kiln refractory	20
PMC562081B	Deliver customer service	20
PMC562083C	Allocate and complete team tasks	20
PMC563081C	Carry out stock control	20

SAMPLE TRAINING PROGRAMS

A range of Sample Training Plans have been provided to demonstrate the flexibility of qualifications contained in the **PMC10 Manufactured Mineral Products Training Package**, but are by no means mandatory.

Occupation	Batch Plant Operator (Float Glass Manufacturing)	
Qualification Title	Certificate II in Manufactured Mineral Products	
Qualification Code	PMC20110	
Description	Appropriate for a person working as a batch plant operator in a float (flat) glass manufacturing plant.	
Unit Code	Unit Title	Hours
Core units		
MSAENV272A	Participate in environmentally sustainable work practices	30
MSAPMOHS200A	Work safely	30
MSAPMSUP100A	Apply workplace procedures	20
MSAPMSUP101A	Clean workplace or equipment	20
MSAPMSUP102A	Communicate in the workplace	20
Elective units		
MSAPMOPS200A	Operate equipment	40
MSAPMSUP106A	Work in a team	30
PMAOPS101C	Read dials and indicators	15
PMC552002C	Operate equipment to blend/mix materials	40
PMC552006C	Operate an autoclave	30
PMC552040C	Operate glass melting process	50
PMC552041C	Operate process ovens	40
PMC552043C	Operate float forming equipment	50
PMC552049C	Operate on-line stacking and assembly equipment	40
PMC562071C	Operate bulk materials handling equipment	30
Total		485

Occupation	Advanced Operator (Float Glass Manufacturing)	
Qualification Title	Certificate III in Manufactured Mineral Products	
Qualification Code	PMC30110	
Description	Appropriate for a person working as an advanced operator in a large float (flat) glass manufacturing plant.	
Unit Code	Unit Title	Hours
Core units		
MSAENV272A	Participate in environmentally sustainable work practices	30
MSAPMOHS200A	Work safely	30
MSAPMSUP100A	Apply workplace procedures	20
MSAPMSUP101A	Clean workplace or equipment	20
MSAPMSUP102A	Communicate in the workplace	20
Elective units		
MSAPMOPS200A	Operate equipment	40
MSAPMSUP106A	Work in a team	30
MSAPMSUP303A	Identify equipment faults	40
MSAPMSUP330A	Develop and adjust a production schedule	30
PMAOPS101C	Read dials and indicators	15
PMC552002C	Operate equipment to blend/mix materials	40
PMC552006C	Operate an autoclave	30
PMC552040C	Operate glass melting process	50
PMC552041C	Operate process ovens	40
PMC552043C	Operate float forming equipment	50
PMC552049C	Operate on-line stacking and assembly equipment	40
PMC553040C	Set up and optimise glass forming process	80
PMC553041C	Set up and optimise glass furnace process	80
PMC553042C	Set up and optimise secondary process	40
PMC562071C	Operate bulk materials handling equipment	30
Total		755

Occupation	Plant Technician	
Qualification Title	Certificate IV in Manufactured Mineral Products	
Qualification Code	PMC40110	
Description	Appropriate for a person working as a technician in a large float (flat) glass manufacturing plant.	
Unit Code	Unit Title	Hours
Core units		
MSAENV272A	Participate in environmentally sustainable work practices	30
MSAPMOHS200A	Work safely	30
MSAPMSUP100A	Apply workplace procedures	20
MSAPMSUP101A	Clean workplace or equipment	20
MSAPMSUP102A	Communicate in the workplace	20
MSAPMSUP200A	Achieve work outcomes	30
Elective units		
MSACMS401A	Ensure process improvements are sustained	50
MSACMT441A	Facilitate continuous improvement in manufacturing	40
MSACMT482A	Assist in implementing a proactive maintenance strategy	50
MSAPMOPS400A	Optimise process/plant area	60
MSAPMOPS401A	Trial new process or product	60
MSAPMOPS406A	Identify problems in electronic control systems	50
MSAPMSUP106A	Work in a team	30
MSAPMSUP390A	Use structured problem solving tools	40
PMAOPS101C	Read dials and indicators	15
PMAOPS402A	Respond to abnormal process situations	50
PMAOPS405A	Operate complex control systems	80
PMC552006C	Operate an autoclave	30
PMC552040C	Operate glass melting process	50
PMC552041C	Operate process ovens	40
PMC552043C	Operate float forming equipment	50
PMC553040C	Set up and optimise glass forming process	80
PMC553041C	Set up and optimise glass furnace process	80
PMC553042C	Set up and optimise secondary process	40
Total		1045

Occupation	Plant Manager	
Qualification Title	Diploma of Manufactured Mineral Products	
Qualification Code	PMC50110	
Description	Appropriate for a person managing a medium to large non-metallic product manufacturing enterprise.	
Unit Code	Unit Title	Hours
Core units		
MSAENV272A	Participate in environmentally sustainable work practices	30
MSAPMOHS200A	Work safely	30
MSAPMSUP200A	Achieve work outcomes	30
MSAPMSUP210A	Process and record information	30
Elective units		
LMTGN5004A	Manage installation and commissioning of equipment and systems	80
MSACMT452A	Apply statistics to processes in manufacturing	40
MSACMT650A	Determine and improve process capability	80
PMAOPS500A	Optimise production systems	100
PMAOPS505A	Control the process in abnormal situations	80
PMC555030C	Analyse equipment performance	50
Total		550

Occupation	Senior Production Manager	
Qualification Title	Advanced Diploma of Manufactured Mineral Products	
Qualification Code	PMC60110	
Description	Appropriate for a person managing a large non-metallic product manufacturing plant	
Unit Code	Unit Title	Hours
Core units		
MSAENV272A	Participate in environmentally sustainable work practices	30
MSAPMOHS200A	Work safely	30
MSAPMSUP200A	Achieve work outcomes	30
MSAPMSUP210A	Process and record information	30
Elective units		
LMTGN5004A	Manage installation and commissioning of equipment and systems	80
MSACMC611A	Manage people relationships	60
MSACMT650A	Determine and improve process capability	80
MSACMT452A	Apply statistics to processes in manufacturing	40
MSACMT675A	Facilitate the development of a new product	80
PMBTECH502B	Review and analyse production trials and specify retrials	60
PMAOPS500A	Optimise production systems	100
PMAOPS505A	Control the process in abnormal situations	80
PMAOPS600C	Modify plant	60
PMAOPS601A	Debottleneck plant	60
PMC555030C	Analyse equipment performance	50
Total		870

Occupation	Refractories Engineer	
Qualification Title	Vocational Graduate Certificate in Refractories Engineering	
Qualification Code	PMC60110	
Description	Appropriate for a person working as a consulting refractories engineer	
Unit Code	Unit Title	Hours
Core units		
MSAPMOHS200A	Work safely	30
PMC557090A	Select refractory materials for an application	50
PMC557091A	Design a refractory lining	50
Elective Units		
PMC557092A	Specify and interpret refractory tests	40
PMC557094A	Investigate refractory failures	40
PMC557095A	Specify and monitor the installation of monolithic/castable refractories	40
PMC557097A	Specify repairs to refractory installations	40
PMC557098A	Specify refractory installation systems	40
MSL916005A	Manage complex projects	50
PMC557001A	Manage trials	40
Total		420

CONTACTS AND LINKS

Industry Skills Council (ISC)		
Manufacturing Skills Australia	This ISC is responsible for developing the PMC10 Manufactured Mineral Products Training Package and can be contacted for further information. You can also source copies of the Training Package and support material.	Address: PO Box 289, North Sydney, NSW, 2089. Phone/fax: 02 9955 5500/ 02 9955 8044. Email: info@mskills.com.au Web: http://www.mskills.com.au/
National Register for VET in Australia		
Training.gov.au (TGA)	TGA is the Australian governments' official National Register of information on Training Packages, qualifications, courses, units of competency and RTOs.	www.training.gov.au
Australian Government		
The Department of Education, Employment and Workplace Relations (DEEWR)	The Higher Education and Skills Group is responsible for funding and the implementation of Vocational Education and Training (VET) in Victoria, including Apprenticeships and Traineeships.	http://www.deewr.gov.au
State Government		
Department of Education and Early Childhood Development Higher Education and Skills Group	Higher Education and Skills Group is responsible for funding and the implementation of Vocational Education and Training (VET) in Victoria, including Apprenticeships and Traineeships.	General information: www.skills.vic.gov.au Approved Training Schemes: http://www.skills.vic.gov.au/corporate/publications/brochures-and-fact-sheets/apprenticeships-and-traineeships-in-victoria-industry-guides
Curriculum Maintenance Manager (CMM)		
General Manufacturing	The CMM service is provided by Executive Officers located within Victorian TAFE institutes on behalf of Higher Education and Skills Group.	Trevor Lange Address: Chisholm Institute, PO Box 684, Dandenong, Vic. 3175. Phone/fax: 03 9238 8448 /03 9238 8504 Email: t.lange@chisholm.edu.au Web: http://trainingsupport.skills.vic.gov.au/

State VET Regulatory Authority		
Victorian Registration and Qualifications Authority (VRQA)	The VRQA is a statutory authority responsible for the registration of education and training providers in Victoria to ensure the delivery of quality education and training.	www.vrqa.vic.gov.au Phone: 03 9637 2806
National VET Regulatory Authority		
Australian Skills Quality Authority (ASQA)	ASQA is the national regulator for Australia's VET sector vocational education and training sector. ASQA regulates courses and training providers to ensure nationally approved quality standards are met.	www.asqa.gov.au Info line: 1300 701 801
Industry Regulatory Body		
Victorian Work Cover Authority	The industry Regulatory body can provide advice on licensing, legislative or regulatory requirements which may impact on the delivery of training or the issuance of qualifications in this Training Package.	Address: Level 24, 222 Exhibition Street, Melbourne, 3000. Phone: 03 9641 1555 Email: info@workcover.vic.gov.au Web: http://www.workcover.vic.gov.au
WorkSafe		
WorkSafe Victoria	WorkSafe needs to provide written verification before High Risk Work Units can be added to an RTO's scope of registration.	www.worksafe.vic.gov.au Info line: 1800 136 089

GLOSSARY

Code	Nationally endorsed Training Package qualification code.
Title	Nationally endorsed Training Package qualification title.
Unit Code	Nationally endorsed Training Package unit code.
Unit Title	Nationally endorsed Training Package unit title.
Nominal Hours	The anticipated hours of supervised learning or training deemed necessary to conduct training and assessment activities associated with the program of study. These hours are determined by the Victorian State Training Authority. Nominal hours may vary for a qualification depending on the units of competency selected.
Scope of Registration	Scope of registration specifies the AQF qualifications and/or units of competency the training organisation is registered to issue and the industry training and/or assessment services it is registered to provide.