

FIELD MANUFACTURING**Review and reclassification of *Plastics Processing Technology* unit standards**

Subfield	Domain	Id
Plastics Processing Technology	Blow Moulding	9714
	Injection Moulding	9712, 9713
	Plastics Materials	271-274, 9708, 9709
	Plastics Processing - General	9711
	Plastics Production	252-260, 295-303

The Plastics and Materials Processing Industry Training Organisation Incorporated (PaMPITO) has reviewed the unit standards listed above, which were registered in March and April 1997 and January 1998.

Date new versions published

August 2006

Planned review date

December 2011

Summary of review and consultation process

A routine review of unit standards due for review in the subfield Plastics Processing Technology was carried out between February and July 2004. All interested industry parties including employers, trainees, and assessors, as well as training providers and moderation staff, were invited by PaMPITO to participate. Everybody who indicated an interest in becoming involved in this process were subsequently invited to plastics industry sector-specific working party meetings held in Auckland, Wellington, and Christchurch. The purpose of these meetings was to review each of the unit standards applicable to each sector, determine in general terms what changes may be required, and agree a process for updating these unit standards. Following each meeting, a summary of the agreed outcomes was circulated to all participants for further comment and verification.

In parallel with this review, PaMPITO also decided to make changes to the classifications of a number of unit standards in the lapsing domain Plastics Production. New domain classifications had previously been approved and registered by NZQA and this review was seen as an opportunity to make appropriate reclassifications.

Main changes resulting from the review

- Unit standards 271-274 required major changes to increase clarity, update technology, introduce core environmental knowledge, and revise credit values. Hence they were replaced with four new unit standards, 23128-23131.
- Unit standard 9708 had a wording change to its title and the titles of all its elements.
- Unit standard 9709 had a wording change to its title and the titles of all its elements, the rewording of one Special Note and two performance criteria to improve accuracy, and its credit value changed as a result of provider feedback.
- Unit standards 252 and 295 required three performance criteria and the range of another performance criterion to be reworded to clarify performance requirements.
- Unit standard 253 required four performance criteria to be modified and ranges added to clarify performance requirements.

- Unit standard 254 required wording improvements to one element title and one performance criterion.
- Unit standard 9712 had the wording improved for one performance criterion and the ranges for two other performance criteria, and the title of one element amended.
- Unit standard 296 required two performance criteria and one range to be reworded, a range added to clarify performance requirements, and a new performance criterion and range substituted for a previous performance criterion to better meet industry needs.
- Unit standard 297 required one performance criterion to be added to cover a skill moved from unit standard 296, and wording improvements to one element title and one performance criterion.
- Unit standard 298 had the range in two performance criteria reworded to clarify performance requirements.
- Unit standard 299 had one range added to clarify performance requirements.
- Unit standard 300 had performance criteria and ranges modified to better describe industry requirements.
- Unit standard 301 had the title reworded for accuracy and one performance criterion wording improved.
- Unit standard 303 had one range relocated to the definitions in the Special Notes, and one element range and one performance criterion consequently reworded.
- Unit standard 9714 had the wording improved for one performance criterion and the ranges for two other performance criteria.
- Unit standard 9711 had its title and two element titles reworded for accuracy.
- All unit standards listed above in the domain Plastics Production have been reclassified.
- The accreditation and moderation options stated in the unit standards have been updated to match PaMPITO's revised AMAP.
- Special Notes have been edited, and modified where required, to ensure consistency with unit standard content, and in terms of style and format among unit standards.
- Adjustments have been made to some performance criteria to match Special Notes and ensure consistency.

Unit standards categorised as category C expire at the end of December 2008.

Impact on existing provider accreditations

Current Accreditation for			Accreditation extended to		
Nature of accreditation	Classification or Id	Level	Nature of accreditation	Classification or Id	Level
Domain	Plastics Production	1, 2 or 3	Domains	Blow Moulding Injection Moulding	Same

Impact on Accreditation and Moderation Action Plan (AMAP)

AMAP 0134 has been updated to reflect the changes made to the standards.

Impact on existing qualifications

Qualifications that contain the reviewed standards or classifications are tabled below.

Affected	The qualification lists a reviewed classification (domain or subfield) in an elective set The qualification lists a standard that has changes to level or credits The qualification lists a C or D category standard
Not materially affected	The qualification lists a standard that has a new title The qualification lists a standard that has a new classification

The following PaMPITO qualifications are impacted by the outcome of this review and will be reviewed before December 2006. Items that generated the *Affected* status are shown in **bold**.

Qualification title	Standard in the qualification
National Certificate in Cablemaking (Level 2) with strands in Wiredrawing, Conductor Assembly, Extrusion, Cable Assembly, and Cable Testing [Ref: 0566]	271, 272, 273
National Certificate in Cablemaking (Level 3) with strands in Wiredrawing, Conductor Assembly, Extrusion, Cable Assembly, and Cable Testing [Ref: 0738]	271, 272, 273, 274
National Certificate in Materials Processing (Level 1) with strands in General, Plastics Injection Moulding, Plastics Extrusion, Plastics Blow Moulding, Plastics Thermoforming, Plastics Blown Film Extrusion, Plastics Film Conversion, Plastics Injection Stretch-Blow Moulding, Plastics Rotational Moulding, Plastics Film Slitting, Expanded Polystyrene Moulding, Glass Containers, and Paint Manufacturing [Ref: 1072]	252, 253, 271, 272 , 295, 296
National Certificate in Materials Processing (Level 2) with strands in General, Plastics Injection Moulding, Plastics Extrusion, Plastics Blow Moulding, Plastics Pressure Thermoforming, Plastics Vacuum Thermoforming, Plastics Blown Film Extrusion, Plastics Film Conversion, Plastics Injection Stretch-Blow Moulding, Plastics Rotational Moulding, Expanded Polystyrene Moulding, Polystyrene Pre-expansion, Glass Containers, and Paint Manufacturing [Ref: 1073]	254, 273 , 297
National Certificate in Plastics Processing Technology (Level 1) with strands in Injection Moulding, Extrusion, Blow Moulding, Thermoforming, Blown Film Extrusion, Film Conversion, Injection Stretch Blow Moulding, and Rotational Moulding [Ref: 0260]	252, 253, 271, 272 , 295, 296
National Certificate in Plastics Processing Technology (Level 2) with strands in Injection Moulding, Extrusion, Blow Moulding, Pressure Thermoforming, Vacuum Thermoforming, Blown Film Extrusion, Film Conversion, Injection Stretch Blow Moulding, and Rotational Moulding [Ref: 0394]	254, 256, 258, 259, 273 , 297, 299, 300, 302
National Certificate in Plastics Processing Technology (Level 3) with strands in Injection Moulding, Extrusion, Blow Moulding, Pressure Thermoforming, Vacuum Thermoforming, Blown Film Extrusion, Film Conversion, Injection Stretch Blow Moulding, and Rotational Moulding [Ref: 0395]	255, 257, 260, 274 , 298, 301, 303
National Certificate in Plastics Processing Technology (Level 4) with strands in Injection Moulding, Extrusion, Blow Moulding, Thermoforming, Blown Film Extrusion, Injection Stretch Blow Moulding Single Stage, Injection Stretch Blow Moulding Two Stage, and Rotational Moulding [Ref: 0396]	9708, 9709 , 9711, 9712, 9713, 9714

The following qualification is also affected by the outcome of this review. The standard setting body (SSB) has been advised that it requires revision.

Qualification title	Standard in the qualification	SSB Name
National Certificate in Engineering Machining and Toolmaking (Level 4) [Ref: 0123]	272, 273	Competenz

Summary of main changes to standards' Ids, classification, titles, levels, and credits

The following summary shows the changes made to the standards as a result of the review. All changes are in **bold**.

Key to review category

- A** Dates changed, but no other changes are made - the new version of the standard carries the same Id and a new version number
- B** Changes made, but the overall outcome remains the same - the new version of the standard carries the same Id and a new version number
- C** Major changes that necessitate the registration of a replacement standard with a new Id
- D** Standard will expire and not be replaced

Subfield Plastics Processing Technology
Domain Blow Moulding

Id	Title	Level	Credit	Review Category
9714	Trial an advanced or complex blow mould	4	8	B

Domain Injection Moulding

Id	Title	Level	Credit	Review Category
9712	Trial an advanced injection mould	4	6	B
9713	Set up and remove complex injection moulds	4	5	B

Domain Plastics Materials

Id	Title	Level	Credit	Review Category
271	Identify and handle plastics materials	1	3	C
23128	Demonstrate basic knowledge of plastics production processes and materials	1	3	
272	Process and use plastics materials	2	4	C
23129	Process and use plastics materials	2	6	
273	Classify and name plastics materials	2	6	C
23130	Classify and name plastics materials	2	8	
274	Compare melt flow and dimensional stability of plastics materials	3	6	C
23131	Compare melt flow and dimensional stability of plastics materials	3	7	
9708	Demonstrate knowledge of the influence of polymer morphology on properties and processing Explain the influence of polymer morphology on properties and processing	4	7	B

Id	Title	Level	Credit	Review Category
9709	Demonstrate knowledge of additive mixing, compounding, and plasticisation Explain additive mixing, compounding, and plasticisation	4	6 7	B

Domain Plastics Processing - General

Id	Title	Level	Credit	Review Category
9711	Review and analyse production trials and specify re-trials Review and analyse production trial and specify re-trial	4	6	B

Domain Plastics Production

Id	Domain	Title	Level	Credit	Review Category
252	Injection Moulding	Perform basic process operations for injection moulding	1	4	B
253	Injection Moulding	Operate the injection moulding machine	2	6	B
254	Injection Moulding	Run and monitor the injection moulding production process	2	9	B
255	Injection Moulding	Control and optimise the injection moulding production process	3	12	B
256	Injection Moulding	Set up simple moulds for injection moulding	2	8	B
257	Injection Moulding	Set up advanced moulds for injection moulding	3	7	B
258	Injection Moulding	Service simple moulds for injection moulding	2	6	B
259	Injection Moulding	Service advanced moulds for injection moulding	2	4	B
260	Injection Moulding	Maintain simple and advanced moulds, and service a complex mould for injection moulding	3	10	B
295	Blow Moulding	Perform basic process operations for blow moulding	1	4	B
296	Blow Moulding	Operate the blow moulding machine	2	6	B
297	Blow Moulding	Run and monitor the blow moulding production process	2	10	B
298	Blow Moulding	Control and optimise the blow moulding production process	3	12	B
299	Blow Moulding	Service simple tooling for blow moulding	2	7	B
300	Blow Moulding	Service advanced tooling for blow moulding	2	8	B

Id	Domain	Title	Level	Credit	Review Category
301	Blow Moulding	Maintain dieheads, simple and advanced tooling, service complex tooling for blow moulding Maintain dieheads and simple and advanced tooling, and service complex tooling for blow moulding	3	12	B
302	Blow Moulding	Set up simple tooling for blow moulding	2	8	B
303	Blow Moulding	Set up advanced and complex tooling for blow moulding	3	12	B