

National Diploma in Plastics Processing Technology (Level 5)

Level 5

Credits 120

This qualification has been **reviewed**. The last date to meet the requirements is 31 December 2019.

Transition Arrangements

This qualification has been reviewed and replaced by the New Zealand Certificate in Plastics Engineering Technology (Level 5) [Ref: 2976].

The last date for entry into programmes leading to the replaced qualification is 31 December 2017. The last date for assessment against the replaced qualification is 31 December 2019.

Candidates currently working towards this qualification may either complete its requirements by the date specified or transfer to the replacement qualification.

This qualification contained an expiring unit standard (25463) for which replacement unit standards have now been registered (27520, 27521). For the purposes of this qualification, people who have gained credit for the expiring unit standards are exempt from the requirement to gain credit for the replacement unit standard – see table below.

Credit for	Exempt from
25463	27520, 27521
7452	27520, 27521

It is anticipated that no existing candidates will be disadvantaged by these transition arrangements. However, anyone who feels that they have been disadvantaged may appeal to Competenz at the address below. Appeals will be considered on a case by case basis.

For detailed information see [Review Summaries](#) on the NZQA website.

NZQF National Qualification Registration Information

Process	Version	Date	Last Date for Assessment
Registration	1	November 2010	December 2019
Review	2	October 2015	December 2019

Standard Setting Body

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Reviewed

National Diploma in Plastics Processing Technology (Level 5)

Level 5

Credits 120

Purpose

The National Diploma in Plastics Processing Technology (Level 5) [Ref: 1597] is designed to supplement the skills and knowledge of processing specialists in various sectors of the plastics processing industry, and help people who want to provide technical leadership in the plastics processing industry to broaden their skill base. People who are awarded this qualification might be technical managers; process development, production planning or management specialists; or people who are involved in work-based training.

The qualification includes a Compulsory section which consists of standards which cover advanced knowledge of plastic polymers and core mechanical engineering skills applicable to all of the plastics processing sectors. It also includes standards which cover project management and production costings.

The Elective section allows candidates to choose between standards that cover advanced mechanical engineering concepts, report writing, and the delivery and assessment of training and development.

People who are awarded this qualification can analyse and resolve complex plastics materials production and development issues and can also apply a range of transferable skills such as report writing, planning, financial management, and training others.

This qualification replaced the National Diploma in Plastics Processing Technology (Level 5) [Ref: 1004] which shares standards in common with this qualification. Therefore, people who have been awarded the replacement qualification can use credits for these standards to meet the requirements of this qualification.

This qualification may follow on from the National Certificate in Plastics Materials (Level 5) [Ref: 1596] which shares standards in common with this qualification.

This is the highest-level qualification available to processing specialists in the plastics processing industry, however people with this qualification are encouraged to undertake further training towards higher-level business management qualifications such as the National Diploma in Business (Level 5) with optional strands in Accounting, Finance, Finance - Māori, Health and Safety Management, Human Resource Management, Māori Business and Management, Marketing, People Development and Coordination, Project Management, Quality Management, and Systems and Resources Management [Ref: 1498].

Replacement Information

This qualification replaced the National Diploma in Plastics Processing Technology (Level 5) [Ref: 1004]. Although this replacement qualification has the same title, it has a different identification number: 1597.

Because of changes in technology, Competenz considers the knowledge and skills covered by this replacement qualification to be significantly different to those covered by the replaced qualification.

Credit Range

	Compulsory	Elective
Level 4 credits	15	0-17
Level 5 or above credits	88	0-17
Minimum totals	103	17

Requirements for Award of Qualification

Award of NZQF National Qualifications

Credit gained for a standard may be used only once to meet the requirements of this qualification.

Unit standards and achievement standards that are equivalent in outcome are mutually exclusive for the purpose of award. The table of mutually exclusive standards is provided on the New Zealand Qualifications Authority (NZQA) website: <http://www.nzqa.govt.nz/qualifications-standards/standards/standards-exclusion-list/>.

Reviewed standards that continue to recognise the same overall outcome are registered as new versions and retain their identification number (ID). Any version of a standard with the same ID may be used to meet qualification requirements that list the ID and/or that specify the past or current classification of the standard.

Summary of Requirements

- Compulsory standards
- Elective – A minimum of 17 credits as specified

Detailed Requirements

Compulsory

The following standards are required

Business > Business Operations and Development > Systems and Resources Management

ID	Title	Level	Credit
27520	Create a plan for an operation in an organisation	5	5
27521	Manage a plan for an operation in an organisation	5	5

Business > Financial Management > Financial Skills

ID	Title	Level	Credit
26367	Demonstrate and apply knowledge of costing for an activity within an entity	5	6

Engineering and Technology > Mechanical Engineering > Applied Principles of Mechanical Engineering

ID	Title	Level	Credit
21773	Demonstrate and apply knowledge of mechanical statics for mechanical engineering	4	15
21779	Demonstrate and apply knowledge of mechanical engineering planning	5	15
21787	Demonstrate and apply electrical and electronic knowledge to mechanical engineering	5	15

Manufacturing > Plastics Processing Technology > Plastics Materials

ID	Title	Level	Credit
19378	Demonstrate knowledge of polymer property relationships, their structure and polymerisation	5	12
19379	Demonstrate knowledge of rheology and calculate output from processing equipment for polymer compounds	5	6
25679	Demonstrate knowledge of plastic product development	5	8

Manufacturing > Plastics Processing Technology > Plastics Processing - General

ID	Title	Level	Credit
19380	Perform heat transfer calculations for plastics processing	5	8
19381	Demonstrate knowledge of plastics processing, fabrication and product finishing technologies	5	8

Elective

A minimum of 17 credits at Level 4 or above

Engineering and Technology > Mechanical Engineering > Engineering - Robotics

ID	Title	Level	Credit
19446	Explain the principles, components, and functions of robots in the manufacturing industry	5	5

Engineering and Technology > Mechanical Engineering > Maintenance and Diagnostics in Mechanical Engineering

ID	Title	Level	Credit
22902	Demonstrate knowledge of process control in mechanical engineering	4	3

ID	Title	Level	Credit
22903	Demonstrate knowledge of modern manufacturing concepts and their significance in plant maintenance	4	3
22904	Demonstrate knowledge of modern engineering plant maintenance practice	4	5

Humanities > Communication Skills > Writing

ID	Title	Level	Credit
9685	Write an analytical report	5	5

Field	Subfield	Domain
Education	Adult Education and Training	Delivery of Adult Education and Training
	Generic Education and Training	Assessment of Learning

Transition Arrangements

Version 1

Version 1 was issued following review to replace the National Diploma in Plastics Processing Technology (Level 5) [Ref: 1004].

There are significant differences between the replaced qualification and the replacement qualification.

- Total credits were reduced from 135 to 120
- The compulsory section was updated to incorporate changes to technology and to reflect the replacement of standards 11388, 11389, 11395, and 11396 (see the exemption table at the end of this section)
- Standards 21779, 25463, 25679, and 26367 were added to the compulsory section and expiring standards 7454 and 14141 were removed
- The elective section was updated to allow more role-specific choices and to indicate that the reduction in total credits resulted in a minimum of only 17 credits at Level 4 or above being required from the elective
- Standards 9685, 19446, 22902, 22903, and 22094 were added to the elective section and standards 4800, 4801, and 14886 and expiring domains in the expiring Management subfield were removed
- The replaced qualification allowed credit transfer arrangements from the New Zealand Certificate in Engineering. These arrangements are no longer available.

Competenz is not aware of any people currently enrolled in programmes of courses leading to the award of the replaced qualification. New candidates will be enrolled on programmes or courses leading to the award of this qualification.

For detailed information see Review Summaries on the NZQA website.

This qualification contains standards that replace earlier standards. For the purposes of this qualification, people who have gained credit for the expiring standards are exempt from the requirement to gain credit for the replacement standards – see table below.

Credit for	Exempt from
1858, 6409	26367
7452	25463
11388, 11389	21773
11395, 11396	21787

Other standard setting bodies whose standards are included in the qualification

Competenz
NZQA

Certification

This certificate will display the logos of NZQA, Competenz, and the organisation that has been granted consent to assess against standards that meet the requirements of the qualification (accredited).

Classification

This qualification is classified according to the classification system listed on the Directory of Assessment Standards (DAS) and the New Zealand Standard Classification of Education (NZSCED) system as specified below.

DAS Classification		NZSCED	
Code	Description	Code	Description
190	Manufacturing > Plastics Processing Technology	030108	Engineering and Related Technologies > Manufacturing, Engineering and Technology > Plastics Processing Technology

Quality Management Systems

Providers and Industry Training Organisations must be granted consent to assess by a recognised Quality Assurance Body before they can register credits from assessment against standards. Accredited providers and Industry Training Organisations assessing against standards must engage with the moderation system that applies to those standards. Accreditation requirements and the moderation system are outlined in the associated Accreditation and Moderation Action Plan (AMAP) for each standard.

Reviewed