

<b>Title</b>	<b>Demonstrate basic knowledge of plastics production processes and materials</b>		
<b>Level</b>	<b>2</b>	<b>Credits</b>	<b>3</b>

<b>Purpose</b>	<p>This unit standard is designed to enable entry-level people to have a basic understanding of plastics production processes and materials.</p> <p>People credited with this unit standard are able to demonstrate basic knowledge of: how plastics products are made; and of plastics materials and their packaging and handling.</p>
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<b>Classification</b>	Plastics Processing Technology > Plastics Materials
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<b>Available grade</b>	Achieved
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### Explanatory notes

- 1 Legislation relevant to this unit standard includes but is not limited to the Health and Safety at Work Act 2015.
- 2 *Workplace procedures* – procedures used by the organisation carrying out the work and applicable to the tasks being carried out. Examples are – standard operating procedures, site safety procedures, equipment operating procedures, codes of practice, quality management practices and standards, procedures to comply with legislative and local body requirements.
- 3 All evidence requirements must be performed in accordance with workplace procedures.

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### Outcomes and evidence requirements

#### Outcome 1

Demonstrate basic knowledge of how plastics products are made.

## Evidence requirements

1.1 Types of plastic products are identified and examples that can be seen around the home are described.

Range types of plastic products – solid shapes, foamed solid shapes, enclosed hollow shapes, continuous shapes, film;  
evidence is required for two examples of each type of plastic product.

1.2 Types of plastic products produced in the workplace are identified and an example of each is described.

Range types of plastic products – solid shapes, foamed solid shapes, enclosed hollow shapes, continuous shapes, film.

1.3 The production methods used to produce plastic products in the workplace are named and the principles of a production method used in the workplace are described.

Range types of plastic products – solid shapes, foamed solid shapes, enclosed hollow shapes, continuous shapes, film;  
examples of production methods are – injection moulding, thermoforming, extrusion blow moulding, injection stretch-blow moulding, rotational moulding, extrusion, extrusion wire coating, film extrusion, film conversion, expanded polystyrene moulding, fabrication.

## Outcome 2

Demonstrate basic knowledge of plastics materials and their packaging and handling.

## Evidence requirements

2.1 Generic polymeric names are used to describe common industry abbreviations for plastics materials.

Range plastics materials – low density polyethylene, high density polyethylene, polypropylene, polyvinyl chloride, general purpose polystyrene, high impact polystyrene, acrylonitrile butadiene styrene, polyethylene terephthalate, polycarbonate, polyamide;  
evidence is required for five plastics materials.

2.2 An example of a product produced in the workplace is identified and the plastics material used to produce the product is named using its generic polymeric name.

2.3 The physical forms of plastics raw materials used to produce plastic products are described.

Range forms – powders, granules, hollow beads, liquid, sheet, film, bottle preforms.

2.4 The common packaging used for plastics raw materials is described.

Range packaging – bags or sacks; bulk bins; bulk bags; drums; plastic film-wrapped or paper-wrapped rolls.

2.5 Potential plastics raw material handling hazards are described. Sources of, and locations for, information on hazards are identified.

Range hazards include – heating fumes, burns, dust, spillages, direct contact;  
sources include – material safety data sheets, company procedures, supervisor.

<b>Replacement information</b>	This unit standard replaced unit standard 271.
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<b>Planned review date</b>	31 December 2021
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#### Status information and last date for assessment for superseded versions

Process	Version	Date	Last Date for Assessment
Registration	1	24 August 2006	31 December 2019
Review	2	15 September 2016	N/A

<b>Consent and Moderation Requirements (CMR) reference</b>	0013
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This CMR can be accessed at <http://www.nzqa.govt.nz/framework/search/index.do>.

#### Please note

Providers must be granted consent to assess against standards (accredited) by NZQA, before they can report credits from assessment against unit standards or deliver courses of study leading to that assessment.

Industry Training Organisations must be granted consent to assess against standards by NZQA before they can register credits from assessment against unit standards.

Providers and Industry Training Organisations, which have been granted consent and which are assessing against unit standards must engage with the moderation system that applies to those standards.

Requirements for consent to assess and an outline of the moderation system that applies to this standard are outlined in the Consent and Moderation Requirements (CMR). The CMR also includes useful information about special requirements for organisations wishing to develop education and training programmes, such as minimum qualifications for tutors and assessors, and special resource requirements.

### **Comments on this unit standard**

Please contact Competenz [qualifications@competenz.org.nz](mailto:qualifications@competenz.org.nz) if you wish to suggest changes to the content of this unit standard.