

<b>Title</b>	<b>Perform process operations for injection moulding</b>		
<b>Level</b>	<b>1</b>	<b>Credits</b>	<b>4</b>

<b>Purpose</b>	<p>This unit standard is designed to enable entry-level people to perform process operations in an injection moulding operation.</p> <p>People credited with this unit standard are able to, for injection moulding: identify operation hazards and take precautions; describe the injection moulding process cycle; perform process operations; and demonstrate knowledge of waste material recycling and/or processing.</p>
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<b>Classification</b>	Plastics Processing Technology > Injection Moulding
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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 Definition  
*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**

Identify operation hazards and take precautions for injection moulding.

**Evidence requirements**

- 1.1 The dangers of heating plastics materials in an injection moulding machine are identified.  
  
Range evidence is required of at least four dangers.

- 1.2 Hazards and harm are identified for the injection moulding process, and precautions are taken.

Range injection moulding process includes – machine, purging, hand tools, ancillary equipment, product, plastic materials; evidence of at least three each is required for hazards, harms and precautions.

## Outcome 2

Describe the injection moulding process cycle.

- 2.1 The injection moulding process cycle stages are described.

Range closing, injection, holding, screwback, cooling, opening, ejection, closing.

## Outcome 3

Perform process operations for injection moulding.

### Evidence requirements

- 3.1 Post-moulding operations are performed.

Range examples of post-moulding operations are – product removal, product inspection, product finishing, product packaging, waste recycling or processing; evidence is required for at least four.

- 3.2 Raw material is loaded, with no damage to the plant, personnel, or material.

- 3.3 Emergency stopping of the injection moulding machine and ancillary equipment is demonstrated.

Range evidence may be simulated if required.

- 3.4 Production recording is carried out for the current production run.

## Outcome 4

Demonstrate knowledge of waste material recycling and/or processing in an injection moulding operation.

### Evidence requirements

- 4.1 Waste material is identified.

Range types of waste include – purging, start-up waste.

4.2 The purpose and principles of operation of material waste recycling or processing equipment are described.

4.3 Personal safety equipment requirements for use when operating scrap granulating equipment are described.

Range safety equipment includes – ear protection, eye protection.

4.4 Hazards, harm, and precautions associated with the use of scrap granulating equipment are described.

Range hazards include – personal injury, material contamination, granulator damage.

<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	28 April 1993	31 December 2013
Revision	2	13 February 1997	31 December 2013
Review	3	23 January 1998	31 December 2013
Review	4	24 August 2006	31 December 2019
Review	5	21 March 2013	31 December 2019
Review	6	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.