

<b>Title</b>	<b>Set up, monitor, and adjust co-extrusion production for blown film extrusion</b>		
<b>Level</b>	<b>3</b>	<b>Credits</b>	<b>10</b>

<b>Purpose</b>	People credited with this unit standard are able to: demonstrate knowledge of the design and operation of a co-extrusion film die; interpret set-up information and set up a blown film extrusion line for co-extrusion production; and monitor and adjust co extrusion production on a blown film extrusion line for a repeat production run.
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<b>Classification</b>	Plastics Processing Technology > Blown Film Extrusion
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<b>Available grade</b>	Achieved
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<b>Entry information</b>	
<b>Recommended skills and knowledge</b>	Unit 291, <i>Operate a blown film extrusion machine for co-extrusion production</i> , Unit 23131, <i>Compare melt flow and dimensional stability of plastics materials</i> , and Unit 289, <i>Set up, monitor, and adjust mono-layer production for blown film extrusion</i> .

### 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 assessment must be carried out using a co-extrusion blown film extrusion machine, i.e. a blown film extrusion machine running multiple extruder lines.
- 4 All evidence requirements must be performed in accordance with workplace procedures.

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## Outcomes and evidence requirements

### Outcome 1

Demonstrate knowledge of the design and operation of a co-extrusion film die.

#### Evidence requirements

- 1.1 The design and operation of co-extrusion, spiral mandrel film die and plate dies are described.

### Outcome 2

Interpret set-up information and set up a blown film extrusion line for co-extrusion production.

#### Evidence requirements

- 2.1 Blown film extrusion film line set-up information is interpreted.
- 2.2 Blown film extrusion parameters are identified and their relevance to co-extrusion line set up are explained.
- Range examples of parameters are – line speed, individual extruder output and speed, layer density, layer gauge, width of film, density factor, blend.
- 2.3 Blown film extrusion film line is set up.

### Outcome 3

Monitor and adjust co-extrusion production on a blown film extrusion line for a repeat production run.

#### Evidence requirements

- 3.1 Blown film extruders and line controls are monitored and adjusted to meet quality and production specifications.
- 3.2 Routine co-extruded film process faults are identified and their correction is described.
- Range routine co-extruded film process faults – inter-layer bond strength, inter-layer melt fracture, individual layer gauge variation, overall gauge variation, film blocking, low impact strength, die line versus lip line, layer gauge variation, colour variation, contamination.

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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	28 April 1993	31 December 2014
Revision	2	13 February 1997	31 December 2014
Review	3	23 January 1998	31 December 2014
Review	4	27 October 2005	31 December 2014
Review	5	17 May 2012	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.