

Title	Optimise complex mono-layer production processes for blown film extrusion		
Level	3	Credits	5

Purpose	People credited with this unit standard are able to: optimise blown film extrusion line settings for complex mono-layer products; and describe, identify, and correct process faults and equipment malfunctions for complex mono-layer products.
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Classification	Plastics Processing Technology > Blown Film Extrusion
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Available grade	Achieved
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Entry information	
Recommended skills and knowledge	Unit 289, <i>Set up, monitor, and adjust mono-layer production for blown film extrusion</i> ; and Unit 23131, <i>Compare melt flow and dimensional stability of plastics materials</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 Definitions
Optimise – the maximum output a line can maintain while remaining stable and producing product to a consistent quality specification.
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 Range
 Examples of complex mono-layer products are – tacky film, multiple roll film, treated film, gusseted film, film produced from polymer blends, film produced at high speed. Evidence is required for two products.
- 4 All evidence requirements must be performed in accordance with workplace procedures.

Outcomes and evidence requirements

Outcome 1

Optimise blown film extrusion line settings for complex mono-layer products.

Evidence requirements

- 1.1 Machine set-up information is interpreted and the blown film extrusion line is set up.
- 1.2 Extrusion operations are performed and quality inspection procedures are consistently applied.
- Range extrusion operation examples are – roll changing, product removal, product finishing, product handling, product packaging.
- 1.3 Extruder and line controls are monitored and adjusted to optimise production output and product quality. Limitations are reported and recommendations are made.

Outcome 2

Describe, identify, and correct process faults and equipment malfunctions for complex mono-layer products.

Evidence requirements

- 2.1 Process faults for complex mono-layer products are identified and corrected.
- Range process fault examples are – distorted perforations, edge wander, blocking, contamination, surface defects, visual defects, haze, poor edge slit quality, roll telescoping, incorrect gauge, machine direction creasing, transverse direction creasing, incorrect width, width variation, edge alignment, incorrect treatment; evidence is required for at least two faults for each product.
- 2.2 The identification and correction of process faults for complex mono-layer products are described.
- Range process fault examples are – distorted perforations, edge wander, blocking, contamination, surface defects, visual defects, haze, poor edge slit quality, roll telescoping, incorrect gauge, machine direction creasing, transverse direction creasing, incorrect width, width variation, edge alignment, incorrect treatment; evidence is required for at least six faults for each product which are different to those assessed in evidence requirement 2.1.

2.3 The symptoms, correction, and reporting of common equipment malfunctions are described.

Range common equipment malfunction examples are – gusset board wear or damage, jammed doser wheels, jammed augers, slitting or trimming blade failure;
evidence is required for two malfunctions for each product.

Replacement information	This unit standard and unit standard 27667 replaced unit standard 290.
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Planned review date	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	17 May 2012	31 December 2019
Review	2	15 September 2016	N/A

Consent and Moderation Requirements (CMR) reference	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 if you wish to suggest changes to the content of this unit standard.