

Title	Operate a blown film extrusion machine for co-extrusion production		
Level	2	Credits	8

Purpose	People credited with this unit standard are able to: demonstrate knowledge of co-extruded films; demonstrate knowledge of a blown film extrusion line for co-extrusion production; shut down and start up a blown film extrusion line and associated equipment that have been pre-set for co-extrusion production; and operate a blown film extrusion machine for co-extrusion production.
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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 29514, <i>Operate pre-set plastics processing machinery</i> ; Unit 23130, <i>Classify and name 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
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.

Outcomes and evidence requirements

Outcome 1

Demonstrate knowledge of co-extruded films.

Evidence requirements

- 1.1 End use advantages of co-extruded films compared to mono-layer films are described.
- Range end use advantages include – mechanical strength, sealability, barrier properties, surface finish, colour, economics.
- 1.2 Raw materials used in co-extruded films are identified and their principal properties are described.
- Range raw materials include – polyolefins; copolymers and bonding polymers; polyamides; ethylene vinyl alcohol.

Outcome 2

Demonstrate knowledge of a blown film extrusion line for co-extrusion production.

Evidence requirements

- 2.1 Blown film line extruder layout, extruder sizes, and layer configuration are identified.
- 2.2 Enterprise film die type is identified and basic design is described.

Outcome 3

Shut down and start up a blown film extrusion line and associated equipment that have been pre-set for co-extrusion production.

Evidence requirements

- 3.1 Raw material for extruding is verified against job specification and loaded.
- 3.2 Shut-down and start-up of extruders, ancillary, and downstream equipment are performed.

Outcome 4

Operate a blown film extrusion machine for co-extrusion production.

Evidence requirements

4.1 Extrusion operations are performed, quality inspection procedures are consistently applied and records are maintained.

Range extrusion operation examples are – roll changing, product removal, product finishing, product handling, product packaging.

4.2 Routine film process faults are identified and their correction is described.

Range routine film process faults include – raw material contamination, carbon contamination, surface finish, individual layer thickness, roll tension, roll telescoping, roll taper, machine direction creasing, transverse direction creasing.

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	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

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.