

## Trial a complex rotationally moulded product

**Level** 4

**Credits** 6

**Purpose** People credited with this unit standard are able to: prepare to trial a complex product; fit a mould for a complex product and set the rotational moulding machine; and trial a complex rotationally moulded product.

**Subfield** Plastics Processing Technology

**Domain** Rotational Moulding

**Status** Registered

**Status date** 20 January 1999

**Date version published** ~~XX Month 20XX~~

**Planned review date** 31 December ~~2014~~

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**Entry information** Recommended: Unit 16118, *Control and optimise the rotational moulding production process for a standard product*, or demonstrate equivalent knowledge and skills.

**Accreditation** Evaluation of documentation and visit by NZQA and industry.

**Standard setting body (SSB)** Plastics and Materials Processing Industry Training Organisation Incorporated

**Accreditation and Moderation Action Plan (AMAP) reference** 0134

This AMAP can be accessed at <http://www.nzqa.govt.nz/framework/search/index.do>.

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### Special notes

- 1 All work practices must meet enterprise health and safety requirements.
- 2 *Enterprise* means an organisation where training and/or assessment is taking place, and/or where the trainee is employed.
- 3 *Enterprise procedure* is defined as actions which comply with the policies, systems, and directives in a particular enterprise. Enterprise procedure must comply with the requirements of the Health and Safety in Employment Act 1992, and subsequent amendments.

#### 4 Definitions

*Standard product* refers to a conventional single skin product, except those classified as complex products below.

*Complex product* refers to products such as double wall products, multiple shot products, products with moulded graphics, products with inserts, complex shaped products.

*Trial* refers to the testing and evaluation of either a new mould, or a mould for which there is neither prior knowledge nor production set up information available.

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### Elements and performance criteria

#### Element 1

Prepare to trial a complex product.

#### Performance criteria

- 1.1 Information available at the enterprise relevant to the trial is gathered, and its understanding is demonstrated.
- Range information includes – trial objectives, product specification, production specification, material specification, mould construction.
- 1.2 Machine suitability for the trial is verified and described.
- Range machine suitability includes – machine capability, machine services, ancillary equipment.
- 1.3 Mould condition is confirmed in accordance with enterprise trialing procedure.
- Range mould condition may include – moulding surface finish, cleanliness, lifting and handling facilities, machine mounting facilities, shot loading facilities, insert mounting points, venting.
- 1.4 Raw material selection is confirmed in accordance with enterprise trialing procedure.
- Range raw material readiness may include – material grinding, material mixing, determination of shot weight, grade selection.

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#### Element 2

Fit a mould for a complex product and set the rotational moulding machine.

#### Performance criteria

- 2.1 Mould is fitted with consideration of any special features in accordance with enterprise requirements.
- Range special features may include – balancing, raw material loading requirements, demoulding requirements.

- 2.2 Initial machine conditions are set according to product configuration, material type, and mould construction.
- 2.3 Machine and mould are dry cycled in accordance with enterprise procedure.

### Element 3

Trial a complex rotationally moulded product.

#### Performance criteria

- 3.1 Trial procedures are carried out in a systematic manner to meet trial objectives, in accordance with enterprise requirements.
- 3.2 Process limitations are determined with respect to product and production specifications.
- Range process limitations may include – mould condition and operation, jiggging, production equipment capability, material grade selection, ambient conditions, labour requirements.
- 3.3 Trial results are recorded and analysed in accordance with enterprise procedure.

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#### Please note

Providers must be accredited by the Qualifications Authority, or an inter-institutional body with delegated authority for quality assurance, before they can report credits from assessment against unit standards or deliver courses of study leading to that assessment.

Industry Training Organisations must be accredited by the Qualifications Authority before they can register credits from assessment against unit standards.

Accredited providers and Industry Training Organisations assessing against unit standards must engage with the moderation system that applies to those standards.

Accreditation requirements and an outline of the moderation system that applies to this standard are outlined in the Accreditation and Moderation Action Plan (AMAP). The AMAP 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.

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#### Comments on this unit standard

Please contact the Plastics and Materials Processing Industry Training Organisation Incorporated [info@pampito.org.nz](mailto:info@pampito.org.nz) if you wish to suggest changes to the content of this unit standard.

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