



Australian Government

Department of Education, Employment and Workplace Relations

PMBPROD317C Print and decorate rigid products

Revision Number: 1

PMBPROD317C Print and decorate rigid products

Modification History

Not applicable.

Unit Descriptor

Unit descriptor

This competency covers the application of knowledge of materials, product purpose and processes to the printing and decoration of rigid products.

This competency is typically performed by all advanced operators working either independently or as part of a work team.

Application of the Unit

Application of this unit

This competency applies to operators of printing and decorating equipment for rigid products. The key factors are the adequate planning of the process stages, preparation of the equipment, checking on performance of the equipment and making adjustments and equipment corrections.

It includes:

- checking job sheets for work to be done and identifying the priority in which jobs/product will be made/completed
- discussing work progress with other workers
- planning which jobs have higher priority
- ensuring appropriate raw materials are available
- ensuring the equipment and materials are appropriate for the job
- carrying out the process
- checking the outputs for conformance with specification
- completing logs and reports.
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Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Prerequisites

This unit of competency has the prerequisite of *PMBPROD217A Operate printing equipment*.

Employability Skills Information

Employability Skills

The required outcomes described in this unit contain applicable Employability Skills. The Employability Skills Summary of the qualification(s) in which this unit is packaged will assist in identifying Employability Skill requirements.

Elements and Performance Criteria Pre-Content

ELEMENT	PERFORMANCE CRITERIA
Elements describe the essential outcomes of a unit of competency	Performance criteria describe the required performance needed to demonstrate achievement of the element. Assessment of performance is to be consistent with the evidence guide.

Elements and Performance Criteria

ELEMENT ELEMENT	PERFORMANCE CRITERIA Performance criteria describe the required performance needed to demonstrate achievement of the element. Assessment of performance is to be consistent with the evidence guide.
1. Plan process stages for printing and decorating.	1.1 Plan the stages in the printing and decorating process and ensure these comply with the quality requirements for production. 1.2 Identify and allow for changes in materials at each stage of the printing and decorating process. 1.3 Plan the availability of the equipment and components for each production stage. 1.4 Anticipate the impact of the process on product characteristics and product quality and usability 1.5 Plan work requirements based on procedures.
2. Identify work requirements for printing and decorating operations.	2.1 Prepare materials, including base raw materials and additives. 2.2 Identify and address hazards connected with both production materials and process. 2.3 Check materials inputs and outputs, dyes and print chemical colours, ancillary supplies and equipment are within specifications. 2.4 Check product quality requirements for the relevant process stage(s). 2.5 Identify and check equipment emergency stops, gauges, guards and controls. 2.6 Plan the task sequences, including times and locations for product quality checks, equipment operation and required production outputs. 2.7 Provide for ongoing materials input, waste management and work area housekeeping requirements. 2.8 Arrange any required supplementary equipment for product quality testing or routine equipment maintenance and/or adjustments.
3. Set up and check printing and decorating equipment.	3.1 Comply with equipment information, required quality specifications and set-up procedures. 3.2 Set up equipment in accordance with required specifications and procedures. 3.3 Check printing and decorating equipment settings and adjustments and conformity to procedures.

ELEMENT ELEMENT	PERFORMANCE CRITERIA Performance criteria describe the required performance needed to demonstrate achievement of the element. Assessment of performance is to be consistent with the evidence guide.
	3.4 Check materials are correct. 3.5 Check that surface preparation operations provide for an even and consistent surface for printing. 3.6 Discard non-conforming materials or make adjustments to processing operations in accordance with workplace procedures.
4. Monitor printing and decorating operation	4.1 Start up, operate and shut down equipment as required by procedures. 4.2 Monitor printing and decorating operations. 4.3 Make adjustments to remedy faults and non-conformity to production standards where applicable. 4.4 Collect material which is able to be reprocessed and reused, and dispose of waste and scrap in accordance with procedures. 4.5 Clean up equipment, lubricate, and adjust in accordance with workplace procedures.

Required Skills and Knowledge

This describes the essential skills and knowledge and their level required for this unit. Application of knowledge of the materials, equipment and process sufficient to recognise material and equipment conditions which may lead to out of specification production. Knowledge of organization procedures and relevant regulatory requirements along with the ability to implement them within appropriate time constraints and work standards. Competence includes the ability for the practical completion of the job to apply and/or explain

- impact of incorrect or faulty materials
- production workflow sequences and materials demand
- focus of operation of work systems and equipment
- correct selection and use of equipment, materials, processes and procedures
- hazards of the materials and process and appropriate hazard control procedures
- distinguish between causes of faults
- material properties and their interactions with process conditions
- relationships between material properties and process conditions
- changes to material properties to better suit process requirements.
- product problems related to material properties
- product problems related to process conditions
- adjustments to process conditions to meet material and product requirements.

Competency also includes the ability to:

- plan own work, including predicting consequences and identifying improvements
- interpret from production requests the correct selection and use of equipment, materials, processes and procedures
- identify factors which may affect product quality or production output and appropriate remedies.

Language, literacy and numeracy requirements

This unit requires the ability to read and interpret typical product specifications, job sheets and material labels as provided to operators.

Writing is required to the level of completing workplace forms.

Basic numeracy is also required, eg to determine that 16 units and 46 units are equal to a total of 62 units.

Evidence Guide

The Evidence Guide provides advice on assessment and must be read in conjunction with the Performance Criteria, Required Skills and Knowledge, the Range Statement and the Assessment Guidelines for this Training Package.

Overview of assessment

A holistic approach should be taken to the assessment.

Assessors must be satisfied that the person can consistently perform the unit as a whole, as defined by the Elements, Performance Criteria and skills and knowledge.

Where the assessee does not currently possess evidence of competency in *PMBPROD217A Operate printing equipment*, it may be co-assessed with this unit.

Critical aspects for assessment and evidence required to demonstrate competency in this unit

It is essential that competence is demonstrated in the knowledge and skills defined in this unit. These may include the ability to:

- identify critical materials properties and printing and decoration process characteristics in relation to the process requirements and the end product
- plan own work process within workplace procedures and explain the reasons for the steps in the process
- take appropriate action to observe equipment, materials and products for out of specification results, make adjustments and identify problems to be reported.

Consistent performance should be demonstrated. For example, look to see that

- production quality and output standards are met consistently
- problems are anticipated from process observations
- problems are efficiently resolved
- the process runs consistently and smoothly.

Assessment method and context

Assessment will occur on an industrial printing and decorating machine(s) equipment and will be undertaken in a work-like environment.

Competence in this unit may be assessed

- by using an appropriate, industrial printing and decorating machine
- in a situation allowing for the generation of evidence of the ability to respond to problems
 - by using a suitable simulation and/or a range of case studies/scenarios
 - through a combination of these techniques.

In all cases it is expected that practical assessment will be combined with targeted questioning to assess the underpinning knowledge and theoretical assessment will be combined with appropriate practical/simulation or similar assessment. Assessors need to be aware of any cultural issues that may affect responses to questions.

Assessment processes and techniques must be culturally appropriate and appropriate to the oracy, language and literacy capacity of the assessee and the work being performed.

Specific resources for assessment

This section should be read in conjunction with the Range Statement for this unit of competency. Resources required include suitable access to an operating plant or equipment that allows for appropriate and realistic simulation. A bank of case studies/scenarios and questions will also be required to the extent that they form part of the assessment method. Questioning may take place either in the workplace, or in an adjacent, quiet facility such as an office or lunchroom. No other special resources are required.

Access must be provided to appropriate learning and/or assessment support when required. Where applicable, physical resources should include equipment modified for people with disabilities.

Range Statement

RANGE STATEMENT

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Add any essential operating conditions that may be present with training and assessment depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts.

Where reference is made to industry codes of practice, and/or Australian/international standards, the latest version must be used.

Context

This competency applies to operators working either independently or as part of a work team.

Procedures

All operations are performed in accordance with procedures.

Procedures means all relevant workplace procedures, work instructions, temporary instructions and relevant industry and government codes and standards.

Tools and equipment

This competency includes use of equipment and tools such as:

- hand carts and trolleys
- knives and other bag opening equipment
- hoists/lifting equipment not requiring any special permits or licences
- basic hand tools required for opening of material packaging
- relevant personal protective equipment.

Hazards

Typical hazards include:

- spills
- dusts/vapours
- hazardous materials
- manual handling hazards
- knife hazards.

Problems

'Anticipate and solve problems' means resolve a wide range of routine and non-routine problems, using product and process knowledge to develop solutions to problems which do not have a known solution/a solution recorded in the procedures.

Typical process and product problems may include:

- variations in materials
- contamination of materials in product to be decorated
- out of specification equipment operation
- variations in materials and/or contamination of materials
- processing problems.

Variables

Key variables to be monitored include:

- equipment operating conditions
- condition of graphics and lettering film
- colour
- output rate
- product integrity and general conformance to specification/sample
- product quality
- ink adherence

- production outputs
- equipment operating pressures
- colour
- thickness
- product integrity.
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Unit Sector(s)

Not applicable.