



Australian Government

Department of Education, Employment and Workplace Relations

ICPSU417C Perform laboratory quality tests of materials and finished product

Revision Number: 1

ICPSU417C Perform laboratory quality tests of materials and finished product

Modification History

Not applicable.

Unit Descriptor

Unit descriptor	This unit describes the performance outcomes, skills and knowledge required to quality test materials and printed products in a laboratory.
------------------------	---

Application of the Unit

Application of the unit	This unit requires the individual to perform quality testing in a laboratory.
--------------------------------	---

Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Prerequisite units		

Employability Skills Information

Employability skills	This unit contains employability skills.
-----------------------------	--

Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.
---	--

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Prepare laboratory equipment	1.1. Appropriate equipment is selected and prepared 1.2. Equipment is checked for calibration where necessary
2. Test raw materials or finished goods	2.1. Raw material or finished goods specification is identified and test procedure established to determine test parameters 2.2. Raw material or finished goods are tested against specified quality standards using appropriate/prescribed testing procedures and according to OHS requirements
3. Record and report test result	3.1. Recording and reporting of test results are completed according to enterprise requirements 3.2. Problems and issues are documented and reported to appropriate personnel
4. Clean laboratory equipment	4.1. Equipment is cleaned and stored according to enterprise requirements 4.2. Chemicals and waste are disposed of according to enterprise procedures and OHS standards

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge required for this unit.

Required skills

- OHS in relation to operating machinery such as safely switching off machinery before cleaning is started
- communication of ideas and information by reporting test results according to enterprise requirements
- collecting, analysing and organising information by recording test results
- planning and organising activities by preparing the laboratory equipment prior to conducting tests
- teamwork when maintaining production system in association with other staff
- mathematical ideas and techniques by calibrating and using measuring devices, and calculating dilution factors
- problem-solving skills by recording and reporting test results
- use of technology by using monitoring and diagnostic equipment

Required knowledge

- OHS and other statutory requirements
- OHS concerns that are there in the use of this testing equipment
- statutory requirements that must be met regarding the use of this equipment?
- testing equipment
- necessity to work in a controlled clean environment
- use of this particular equipment
- equipment calibration
- printing processes
- common tests that are required for the various printing operations and products in this company
- common causes of failure in the products that you test
- test that was performed on this product and why
- sampling and quality control techniques
- sampling techniques that are used to select products for testing?
- appropriate size of samples for testing
- record keeping
- records that need to be kept on a particular test product
- purpose of keeping test results
- use of test results in the future
- equipment maintenance
- need to keep this equipment clean
- storing test equipment

REQUIRED SKILLS AND KNOWLEDGE

- chemicals that are used to clean the equipment
- manuals, safety and other documentation that are relevant to this task and where are they kept and information that is included in these documents

Evidence Guide

EVIDENCE GUIDE	
The Evidence Guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.	
Overview of assessment	
Critical aspects for assessment and evidence required to demonstrate competency in this unit	Evidence of the ability to: • correct performance of laboratory tests for quality of materials and products. The correct disposal of chemicals and waste according to enterprise procedures and OHS standards • demonstrate an ability to find and use information relevant to the task from a variety of information sources • produce a portfolio showing completed paperwork for a range of tests that have been carried out and at least one month's record of no complaints from customers (internal or external) about the quality of goods that have been approved • evidence for assessment may be gathered from assessment of the unit of competency alone or through an integrated assessment activity.
Context of and specific resources for assessment	Assessment must ensure: • assessment may take place on the job, off the job or a combination of these. Off the job assessment must be undertaken in a closely simulated workplace environment • laboratory testing equipment.
Method of assessment	A range of assessment methods should be used to assess practical skills and knowledge. The following examples are appropriate for this unit: • direct questioning combined with review of portfolios of evidence and third party workplace reports of on-the-job performance by the candidate.
Guidance information for assessment	Holistic assessment with other units relevant to the industry sector, workplace and job role is recommended.

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. Bold italicised wording, if used in the performance criteria, is detailed below. 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) may also be included.	
Quality standards may include:	• should meet client requirements and enterprise and industry standards.
Record keeping may include:	• record keeping procedures may involve independent and varied keyboard operations.
Work environment may include:	• the competencies apply to personnel who have access to working in a laboratory situation with appropriate equipment and resources • the work environment application relates to working under minimal supervision exercising initiative and judgement with discretion.
Colour matching systems may include:	• use of visual and computer diagnostic systems.
Inks/coatings may include:	• range of inks/coatings used in 3-4 or more colour printing and specialty finishes such as laminates, embossing, foils, carbon.
Range of machines may include:	• range of pre-press, printing, converting, binding and finishing processes.
Substrate types may include:	• range of substrates within the major categories of paper, pressure sensitive material, board, corrugated board, plastics and related films, or metal.
Substrate handling may include:	• wide and narrow reel and large and small sheet handling systems.

Unit Sector(s)

Unit sector	
--------------------	--

Competency field

Competency field	Support
------------------	---------

Co-requisite units

Co-requisite units		