Specification of Competency Standards
for the Testing, Inspection and Certification Industry
Unit of Competency

Functional Area - Testing Operations

Title	Evaluate the construction of products by visual inspection (electrical products)
Code	105848L4
Range	This unit of competency (UoC) covers the abilities to evaluate the marking and construction requirements of electrical and electronic products independently by visual inspection and conclude inspection results in testing laboratories.
Level	4
Credit	4 （For Reference Only）

Competency	Performance Requirements
	1. Possess knowledge of product marking and construction
	
	• Identify the construction parts of selected electrical and electronic products, e.g.:
	   o audio, video and similar electronic apparatus,
	   o household and similar electrical appliances,
	   o information technology equipment,
	   o luminaries.
	• Employ the principles of construction requirements in relation to, e.g.:
	   o insulation classification system,
	   o IP rating,
	   o mobility of electrical and electronic products,
	   o types of power supply cord connection,
	   o marking and instruction.
	• Specify the requirements of marking and construction of selected electrical and electronic products in relevant categories of standards, e.g.:
	   o basic/generic standards, product family standards,
	   o international, national and industrial standards such as IEC, EN, GB, BS, UL, MS, SS, AS/NZS.
	2. Perform visual inspection
	
	• Select appropriate test methods/standards for visual inspection on electrical and electronic products.
	• Select the parts of the test sample to be inspected for the evaluation of construction according to the test methods/standards.
	• Carry out visual inspection on the construction of the sample, e.g.:
	   o supply cord, internal and external wiring, insulation, switch, handle, knobs, grips, levers and similar parts, separation of insulation, presence of sharp or ragged edges, pressurised design, protective devices against safety risk,
	   o specific construction requirements.
	• Carry out visual inspection on marking and warning statement, e.g.:
	   o use appropriate tests and reagents to verify that marks are legible and durable,
	   o determine the suitability of location of marking,
	   o examine the appropriateness and correctness of marking content.
	• Record observations and conclude inspection results to confirm the compliance of construction and marking of the test sample.
	3. Exhibit professionalism
	
	• Ensure all inspection activities are carried out in compliance with good industry practices and relevant international standards.
	• Ensure integrity and confidentiality of laboratory data and information by observing the code of conduct as required by the standards and the organisation.

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Assessment Criteria	The integrated outcome requirements of this UoC are the abilities to:
	- carry out visual inspection on selected electrical and electronic product independently by applying the knowledge of construction and marking according to the requirements of test methods/standards, - record observations and conclude inspection results to confirm the compliance of construction and marking of the product against the relevant specifications of test methods/standards.
Remark	