

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

Functional Area - Testing Operations

Title	Perform feather and down analysis
Code	105862L4
Range	This unit of competency (UoC) covers the abilities to carry out suitable speciation and properties tests on feather and down independently, record accurate test data and determine the properties of the feather and down in testing laboratories.
Level	4
Credit	2 (For Reference Only)
Competency	<p>Performance Requirements</p> <p>1. Possess knowledge of feather and down analysis</p> <ul style="list-style-type: none"> <li>• Employ the principles of speciation and composition and its relation to the properties of feather and down.</li> <li>• Command the principles and methods of carrying out feather and down analysis, e.g. speciation, composition labelling, feather length, filling power, net weight, oil and moisture content, oxygen number, turbidity, acidity.</li> <li>• Describe the importance of conditioning and water regain affecting the properties of feather and down.</li> <li>• Specify the requirements of properties of feather and down to selected type of garment product.</li> <li>• Identify relevant test standards and specifications for feather and down, e.g.: <ul style="list-style-type: none"> <li>○ international and national standards such as ASTM, EN, AS/NZS, CAN/CGSB, BS, GB, FZ, IDFB, US Fed. St. No. 148,</li> <li>○ manufacturers' and/or clients' specifications.</li> </ul> </li> <li>• Explain the principles and operation of equipment used for the feather and down analysis.</li> <li>• Apply the concepts of uncertainty and equipment calibration to feather and down analysis.</li> </ul> <p>2. Perform feather and down analysis</p> <ul style="list-style-type: none"> <li>• Select appropriate test methods/standards, test plans, environmental conditions, and test accessories for feather and down analysis.</li> <li>• Apply appropriate conditions to the testing equipment.</li> <li>• Prepare the required size and number of sample.</li> <li>• Carry out feather and down analysis on the sample independently according to the test methods/standards.</li> <li>• Carry out required validation checks to confirm the environmental and equipment requirements are met.</li> <li>• Record accurate test data and judge test results to determine the properties of the feather and down sample in compliance with the required specifications.</li> </ul> <p>3. Exhibit professionalism</p> <ul style="list-style-type: none"> <li>• Ensure all tests are carried out in compliance with good laboratory practices under relevant categories of standards.</li> <li>• Ensure integrity and confidentiality of laboratory data and information by observing the code of conduct as required by the standards and the organisation.</li> </ul>
Assessment Criteria	<p>The integrated outcome requirements of this UoC are the abilities to:</p> <ul style="list-style-type: none"> <li>• carry out composition and property tests on selected feather and down sample independently by applying appropriate testing equipment and environmental conditions according to the requirements of test methods/standards,</li> </ul>

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	<ul style="list-style-type: none"><li>• record accurate and reliable test data by data validation and verifying equipment calibration status,</li><li>• judge test results to confirm the compliance of composition and property of the feather and down against the relevant specifications of test methods/standards and/or manufacturers/clients.</li></ul>
Remark	