

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

Functional Area - Testing Operations

Title	Perform evaluation tests
Code	105855L5
Range	This unit of competency (UoC) covers the abilities to evaluate results of care performance, fabric performance and colour fastness tests, assess the changes in properties of textile and garment products independently by applying the knowledge of evaluation tests, and critically evaluate test results in testing laboratories.
Level	5
Credit	4 (For Reference Only)
Competency	<p>Performance Requirements</p> <p>1. Possess knowledge of evaluation tests</p> <ul style="list-style-type: none"> <li>• Command the principles, methods and equipment for carrying out care performance, colour fastness and/or fabric performance tests.</li> <li>• Command the principles of evaluation to different types of tests, e.g. colour change and colour staining of colour fastness tests, appearance of durable press, seam and crease after repeated home laundering, pilling tests, water repellency test, wrinkle tests, snagging resistance tests.</li> <li>• Describe the methods of evaluation including conditions and environment such as lighting and background for conducting the evaluation.</li> <li>• Identify relevant evaluation standards and specifications, e.g.: <ul style="list-style-type: none"> <li>○ international and national standards such as AATCC, ASTM, ISO, EN, DIN, AS/NZS, CAN/CGSB, WOOLMARK, JIS, BS, GB,</li> <li>○ manufacturers' and/or clients' specifications.</li> </ul> </li> <li>• Specify the verification system including minimum number of raters or assessors and the maximum allowable differences between their assessment results.</li> <li>• Apply the concepts of equipment calibration and traceability to evaluation tests, e.g.: <ul style="list-style-type: none"> <li>○ Gray Scale or Chromatic Transference Scale for colour change and colour staining of colour fastness tests,</li> <li>○ durable press replicas for appearance of durable press after repeated home laundering,</li> <li>○ photographic comparative ratings for single and double needle seams for appearance of seams after repeated home laundering,</li> <li>○ photographic comparative ratings for crease retention for appearance of crease after repeated home laundering,</li> <li>○ photographic pilling standards for pilling tests,</li> <li>○ spray test rating chart for water repellency test,</li> <li>○ wrinkle recovery replicas for wrinkle recovery of fabrics.</li> </ul> </li> </ul> <p>2. Perform evaluation tests</p> <ul style="list-style-type: none"> <li>• Apply appropriate test methods/standards and environmental conditions for evaluation tests, e.g.: <ul style="list-style-type: none"> <li>○ angle and distance between the eye and the specimen for pilling test,</li> <li>○ dark environment for wrinkle, crease and seams rating,</li> <li>○ angle and dark chamber for colour fastness assessment.</li> </ul> </li> <li>• Apply appropriate reference standards for the comparative evaluation.</li> <li>• Carry out evaluation tests independently according to the test methods/standards.</li> <li>• Justify the evaluation results normally in the range of 1 to 5.</li> <li>• Critically evaluate the results with another rater or assessor.</li> <li>• Take corrective actions by exercising appropriate judgement when the difference exceeds the defined criteria.</li> </ul>

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	<p>3. Exhibit professionalism</p> <ul style="list-style-type: none"><li>• Ensure all evaluations 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 implementing the code of conduct as required by the standards and the organisation.</li><li>• Check colour sensitivity periodically using Munsell Hue test or equivalent.</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 evaluation tests independently by applying appropriate test and environmental conditions and reference standards according to the requirements of test methods/standards,</li><li>• verify evaluation results with another rater or assessor,</li><li>• critically evaluate test results against the relevant specifications of test methods/standards.</li></ul>
Remark	