

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

Functional Area - Testing Operations

Title	Perform footwear tests
Code	105864L4
Range	This unit of competency (UoC) covers the abilities to carry out suitable physical strength and performance tests on footwear products independently, record accurate test data and determine the physical strength and performance of footwear in testing laboratories.
Level	4
Credit	2 (For Reference Only)
Competency	<p>Performance Requirements</p> <p>1. Possess knowledge of physical strength and performance of footwear and related tests</p> <ul style="list-style-type: none"> • Describe the functions and the related physical performance of footwear and its components, e.g. zips, touch, close fasteners. • Describe the importance of conditioning affecting the physical performance of footwear. • Employ the principles and methods of carrying out physical strength and performance tests for footwear, e.g.: <ul style="list-style-type: none"> ○ slip and flex cracking resistance, ○ sole bond adhesion, seam, heel attachment strength, ○ peeling strength of upper and sole, ○ hardness of heels, ○ shank flexing strength, ○ abrasion-resistance of outsole, ○ component testing, ○ waterproof testing, ○ wear trials, ○ fit assessment, ○ raw material testing (e.g. pure leather or PU, shoestrings). • Specify the requirements of physical strength and performance tests to the selected type of footwear products. • Collect appropriate sample size from the submitted samples. • Identify relevant physical strength and performance test standards and specifications for footwear, e.g.: <ul style="list-style-type: none"> ○ international and national standards such as ASTM, ISO, EN, DIN, AS/NZS, CAN/CGSB, JIS, BS, GB, SATRA, ○ manufacturers' and/or clients' specifications. • Explain the principles and operation of equipment used for physical performance tests. • Apply the concepts of uncertainty and equipment calibration to physical strength and performance tests. <p>2. Perform physical strength and performance tests for footwear</p> <ul style="list-style-type: none"> • Select appropriate test methods/standards, environmental conditions and test accessories for physical strength and performance tests of footwear. • Apply appropriate conditions to the testing equipment. • Prepare the required size and number of footwear sample and apply appropriate conditioning atmosphere to the sample under test. • Carry out physical strength and performance tests on the footwear sample independently according to the test methods/standards. • Carry out required validation checks to confirm the environmental and equipment requirements are met. • Record accurate test data and judge test results to confirm the physical strength and performance of the footwear sample in compliance with the required specifications.

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	<p>3. Exhibit professionalism</p> <ul style="list-style-type: none"> • Ensure all tests are carried out in compliance with good laboratory practices under relevant categories of standards. • Ensure integrity and confidentiality of laboratory data and information by observing the code of conduct as required by the standards and the organisation.
<p>Assessment Criteria</p>	<p>The integrated outcome requirements of this UoC are the abilities to:</p> <ul style="list-style-type: none"> • carry out strength and performance tests on selected footwear product independently by applying appropriate testing equipment and test conditions according to the requirements of test methods/standards, • record accurate and reliable test data by data validation and verifying equipment calibration status, • judge test results to confirm the compliance of physical strength and performance of the footwear against the relevant specifications of test methods/standards and/or manufacturers/clients and/or regulatory requirements.
<p>Remark</p>	