

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

Functional Area - Testing Operations

Title	Perform physical and mechanical tests on glass and glazing materials
Code	105841L3
Range	This unit of competency (UoC) covers the abilities to carry out physical and mechanical tests on glass and glazing materials and record test data accurately in testing laboratories.
Level	3
Credit	2 (For Reference Only)
Competency	<p>Performance Requirements</p> <p>1. Possess knowledge of physical and mechanical tests applicable to glass and glazing materials</p> <ul style="list-style-type: none"> <li>• Identify the impact performance requirements of flat safety glass used in buildings.</li> <li>• Describe the principles and concepts underpinning test methods for physical and mechanical tests of glass and glazing materials.</li> <li>• Describe the principles and operation of equipment used for physical and mechanical tests on glass and glazing materials.</li> <li>• Specify the calibration requirement of equipment.</li> </ul> <p>2. Perform physical and mechanical tests on glass and glazing materials</p> <ul style="list-style-type: none"> <li>• Apply appropriate test methods/standards, testing equipment and test conditions for physical and mechanical tests on selected glass and glazing material.</li> <li>• Carry out physical and mechanical tests on selected glass / glazing material according to test methods/standards, e.g.: <ul style="list-style-type: none"> <li>○ impact performance test of flat safety glass,</li> <li>○ resistance to impact,</li> <li>○ boil test for laminated glass,</li> <li>○ fragmentation test for heat soaked thermally toughened soda lime silicate safety glass.</li> </ul> </li> <li>• Carry out required calibration checks on testing equipment.</li> <li>• Record test data for reporting.</li> </ul> <p>3. Exhibit professionalism</p> <ul style="list-style-type: none"> <li>• Ensure integrity and confidentiality of test data by observing the code of conduct of the laboratory.</li> <li>• Follow established safe work practices and use appropriate personal protective equipment.</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 physical and mechanical tests on selected glass / glazing material by applying appropriate testing equipment and test conditions according to the requirements of test methods/standards and test specifications,</li> <li>• record accurate test data by verifying equipment calibration status.</li> </ul>
Remark	