

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

Functional Area - Testing Operations

Title	Perform sampling and basic field tests on fresh concrete and on-site curing on concrete cubes
Code	105846L3
Range	This unit of competency (UoC) covers the abilities to carry out sampling and basic field tests on fresh concrete and on-site curing on concrete cubes by following prescribed procedures and record reliable test data at testing sites.
Level	3
Credit	2 (For Reference Only)
Competency	<p>Performance Requirements</p> <p>1. Possess knowledge and procedures of carrying out sampling and field tests on fresh concrete</p> <ul style="list-style-type: none"> • Describe sampling methods for fresh concrete, casting and curing concrete specimens and identify the requirements of sample conditions. • Command the principles and operation of equipment and apparatus used for field tests, e.g. slump cone, flow table, flow cone, cube mould, tamping rod, thermometer. • Describe the requirements of environmental conditions for carrying out field tests. • Describe the requirements of equipment calibration and performance check for field tests. <p>2. Perform field sampling and tests on fresh concrete</p> <ul style="list-style-type: none"> • Perform site sampling according to specified requirements, e.g. sampling frequency, selection of samples, minimum sample size. • Follow appropriate test methods and apply testing equipment according to the prescribed procedures. • Apply appropriate ambient conditions for carrying out field tests. • Set up and check the calibration status of equipment and apparatus according to test requirements. • Carry out field tests and measurements on fresh concrete, e.g.: <ul style="list-style-type: none"> ○ slump test, ○ flow table test, ○ flow cone test, ○ temperature of placing concrete, ○ casting test specimen. • Record and document reliable field test data. • Cure specimens of concrete cubes on site according to specified curing regime. • Monitor site curing facilities and record curing conditions regularly. <p>3. Exhibit professionalism</p> <ul style="list-style-type: none"> • Ensure integrity and confidentiality of test data by observing the relevant code of conduct. • Observe safe work practices and use appropriate personal protective equipment at the sampling and testing site.
Assessment Criteria	<p>The integrated outcome requirements of this UoC are the abilities to:</p> <ul style="list-style-type: none"> • carry out basic sampling and field tests on fresh concrete by applying appropriate testing equipment according to the prescribed procedures, • perform on-site curing of concrete cubes and monitor site curing facilities, • record and document reliable test data by checking the calibration status of equipment.
Remark	