

Specification of Competency Standards
for the Jewellery Industry
Unit of Competency

Functional Area - Testing and Certification

Title	Determine the testing methods
Code	109013L4
Range	This unit of competency is applicable to practitioners who work in gemmological laboratories in the jewellery industry. This unit of competency is applied in related work environments. Under instruction, practitioners should be capable of determining the required data/information, and suitable testing equipment and techniques, so as to determine the established standard testing methods for testing/identification.
Level	4
Credit	3
Competency	Performance Requirements 1. Determine the testing methods and confirm the elements required • Determine the type and amount of data/information required • Make use of statistics to assess and determine the methods, including related tests: ○ Principle ○ Concept ○ Accreditation requirements ○ Traceability ○ Results • Ensure that the calibration of the testing instrument/equipment meets the relevant standards, such as: ○ Touchstone method (non-destructive), X-ray fluorescence spectrometry (non-destructive) ○ Fire assay (consumptive and destructive) ○ Inductively coupled plasma spectrometry (consumptive and destructive) • Confirm that the uncertainty level of the testing method is within the acceptable range 2. Determine the testing methods • Ensure that the testing method is authorized by the relevant supervisor • Confirm the procedures of the testing method, including: ○ Conduct literature/data search on the background of the gemstone/precious metal to be tested ○ Start, set/optimize, calibrate and operate the related testing instrument/equipment according to the manufacturer's specifications ○ Prepare the test sample and standards for confirmation ○ Conduct the test according to the confirmed method ○ Record the entire testing procedure in detail ○ Write the test report 3. Professionalism • Maintain the security and confidentiality of all customer/organization data and test data during the process • Regularly review the code of conduct of the gemmological laboratories to maintain the impartiality, confidentiality and integrity of the practitioners of the laboratories
Assessment Criteria	The integrated outcome requirement of this unit of competency is: • Able to determine the required data/information, and the suitable testing equipment and techniques, so as to determine the established standard testing methods.

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