

REGISTERED NATIONAL STANDARD



UNIT OF COMPETENCY

Title:	Repair wall and floor tiles ¹				
TQF Level:	4	Credits:	7	Version:	1
National standard code:	NS175-04				
Associated qualification (and code):	National Certificate in Wall and Floor Tiling Level 4 QR-04-NQ-028-04-1005-26-01				
Approval date:	10 September 2026		Review date:	10 September 2031	
Purpose:	This unit describes the skills and knowledge required to remove, repair, and replace damaged wall and floor tiles using appropriate materials such as mortar and adhesives. It includes planning and preparing work, identifying and removing defective tiles without damaging surrounding surfaces, preparing substrates, selecting and cutting replacement tiles, installing new tiles, and completing grouting and finishing tasks. The unit applies to tilers working independently or as part of a team, requiring compliance with workplace safety (OHS), environmental requirements, and quality standards. The unit emphasises precision in matching existing tiles, maintaining alignment and joint consistency, and ensuring repaired surfaces are durable, visually consistent, and compliant with specifications. All work must be undertaken in accordance with the Tonga National Building Code, work health and safety requirements, environmental regulations, and workplace best practices and procedures. In successfully completing this unit standard, learners are able to: • Apply safety (OHS) and environmental procedures during all tasks • Interpret work instructions, drawings, and specifications for tile repair • Plan and prepare work activities and identify resource requirements • Select and prepare appropriate tools, equipment, and materials • Calculate material quantities for repair work • Identify and remove damaged or defective tiles carefully • Check and clean/repair existing substrate and bedding surfaces				

¹ Due to safety issues inherent in working with electricity and combustible substances, all training and assessment activities must be in accordance with Tonga National Building Code.

	• Select and cut replacement tiles to match size, colour, and pattern • Install replacement tiles maintaining alignment and joint spacing • Apply and finish grout to achieve required surface finish • Ensure repaired tilework meets quality standards and specifications • Dispose, reuse, or recycle materials according to environmental requirements • Clean, maintain, and store tools and equipment after comp
Learning Outcome 1 (LO1)	Prepare for wall and floor tile repair work
Performance standards	1.1 Obtain work instructions and operational details using relevant information, confirmed and applied for planning and preparation of repair work; 1.2 Follow safety (OHS) requirements; <i>(Range in accordance with safety plans and policies throughout all tiling activities)</i> 1.3 Identify and implement signage and barricade requirements; 1.4 Select tools and equipment to carry out tasks and are consistent with the requirements of the job; 1.5 Calculate material quantity requirements; <i>(Range in accordance with plans and specifications)</i> 1.6 Determine materials appropriate to the work application are prepared, safely handled and located ready for use; 1.7 Determine environmental requirements for the project. <i>(Range in accordance with environmental plans)</i>
Learning Outcome 2 (LO2)	Repair damaged tilework
Performance Standards	2.1 Remove damaged tiles without endangering other tiles; 2.2 Clean old bedding to allow for replacement tile; 2.3 Check and repair any damaged to the existing substrate structures/surfaces; 2.4 Select and cut replacement tiles where applicable to match existing face, size, colour and pattern; 2.5 Install tiles to maintain alignment with joints to uniform spacing; 2.6 Grout and clean tile face to specified finish.
Learning Outcome 3 (LO3)	Clean up tiling repair work area
Performance standards	3.1 Clear the work area and dispose of materials; 3.2 Clean tools and equipment;

	3.3 Report damage or faults to relevant personnel; 3.4 Store and secure tools and equipment; 3.5 Store materials for reuse or recycle; <i>(Range following workplace and environmental requirements)</i> 3.6 Report task completion.
Pre-requisites	NS133-03 Apply <i>Occupational Health and Safety</i> (OHS) requirements, policies and procedures
Co-requisites	N/A
Underpinning skill and knowledge	The following skills and knowledge underpin this unit standard: <u>Skills:</u> Communication - Follow instructions and workplace procedures - Read and interpret drawings, specifications, and documentation - Report faults and issues clearly - Use appropriate communication methods, including verbal and non-verbal signals Tiling Techniques - Remove damaged tiles without affecting surrounding tiles - Prepare substrates and clean old bedding materials - Select and match replacement tiles - Cut tiles accurately to fit repairs - Install tiles maintaining alignment, spacing, and level - Apply grout and clean finished surfaces Planning and organisational - Plan and sequence repair activities - Organise materials, tools, and resources - Set out work efficiently and safely - Identify defects and causes of damage - Assess appropriate repair methods - Evaluate quality of completed repairs - Record work outcomes and completion procedures - Interpret technical documentation and specifications Teamwork - Work effectively with others on-site

	• Coordinate tasks with team members • Use communication devices (e.g., radios, mobile phones) • Apply site communication systems such as hand signals Safety • Identify workplace hazards • Apply OHS procedures and use PPE correctly • Follow safe work method statements <u>Knowledge:</u> Tiling • General tiling terminology • Techniques for removing and replacing wall and floor tiles • Types of tiles (ceramic, porcelain, stone, etc.) • Tile fixing methods (adhesive, mortar) • Tiles • Adhesives • Mortar • Grouts • Substrates • Material preparation and finishing techniques Tools and equipment • Types, uses, and limitations of tiling tools and equipment • Safe operation and maintenance of tools Safety and compliance • Job Safety and Environment Analysis (JSEA) • Material Safety Data Sheets (MSDS) • Hazards associated with adhesives, solvents, and grout • PPE's • Workplace safety and environmental requirements Planning and documentation • Reading and interpreting plans, drawings, and specifications • Processes for calculating material requirements • Quality assurance and compliance standards Environmental knowledge • Waste management and recycling practices • Environmental protection requirements on-site
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Assessment requirements	<u>Assessment methods</u> may include more than one of the following: Direct Observation Assessment of learners while they are performing tasks in real time in a real simulated environment. • The learner performs practical tasks. • The assessor watches the learner complete these tasks against a checklist or performance standards. Assessor Requirements • Use a structured observation checklist aligned to performance standards • Observe multiple occasions to ensure consistency of competence. • Record evidence of safe work practices, correct use of equipment, etc. • Provide immediate feedback where appropriate. • Ensure conditions reflect real workplace standards. Oral Questioning Verbal questions asked to assess the learner's understanding of knowledge and reasoning. • Conducted during or after practical tasks. • Can be structured (planned questions) or informal (follow-up probing). Assessor Requirements • Ask questions that test underpinning knowledge • Use open-ended questions • Confirm learner understanding where practical performance is not enough. • Record responses clearly (notes or checklist). • Adjust language to suit learner literacy levels. Written Test A structured assessment requiring learners to provide written responses. • Short-answer questions, multiple choice, or case scenarios. • Typically conducted off-site or in a classroom environment. Assessor Requirements • Design questions that assess knowledge.
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	• Ensure the test is clear, aligned to unit requirements and appropriate for language, literacy, numeracy levels • Mark responses using a marking guide or model answers. • Provide feedback and identify gaps in knowledge. • Ensure results reflect the learner's independent performance. Work-Based Activity Assessment conducted in a real workplace while the learner performs actual job tasks. • Learners complete normal workplace duties. • Evidence is collected over time. Assessor Requirements • Coordinate with workplace supervisors. • Gather evidence such as - Observation reports, Supervisor feedback, etc. • Verify that tasks meet unit performance standards. • Ensure authenticity (learner's own work). • Confirm competence across different situations and timeframes. Assessment should use a combination of the above methods to ensure sufficient, valid, authentic, and current evidence of competence in both skills and knowledge, in line with unit requirements. <u>Context of Assessment:</u> Competency is to be assessed in the workplace or a simulated workplace environment that accurately reflects a real workplace setting. Assessment is to comply with relevant regulatory or relevant standards' requirements. Assessment of essential knowledge will usually be conducted in an off-site situation.
Moderation arrangements	1. Training providers must have their own moderation system approved by TNQAB before accreditation is granted: a) Relevant internal moderation processes are documented; b) Assessment is planned for each unit, and moderation processes are integrated into such plan.

	2. Unless specified elsewhere, external moderation is conducted by the National Qualifications unit of TNQAB for all unit components of a national qualification: a) Samples of assessed activities are submitted for moderation; b) Moderation (external) forms are available on request.
Resource requirements	1. Power point presentations 2. Trainer's Guide 3. Learner's Guide 4. Drawings, plans, specifications, and work instructions 5. Workplace safety and environmental documentation 6. Replacement tiles (ceramic, porcelain, stone, etc.) 7. Adhesives and mortar 8. Grout and sealants 9. Step ladder 10. Tile cutting tools (tile cutters, saws, grinders) 11. Hand tools (trowels, hammers, scrapers, spacers) 12. Measuring and levelling tools (tape measures, levels, straight edges) 13. Cleaning tools (sponges, brushes, rags) 14. Mixing equipment (buckets, mixers) 15. Power tools (drills, grinders) 16. Tonga National Building Code 17. Job Safety and Environment Analysis (JSEA) 18. Personal Protective Equipment 19. Structured assessment and evidence-collection tools 20. Wheel barrow 21. Shovel
Requirements to complete this unit	There are three (3) Learning outcomes and nineteen (19) Performance standards to measure competence. To demonstrate competence, the person studying this unit is: a. Required to demonstrate all LOs to the expected standards; b. Required to attain an Achieved Grade (Competent) to fulfil the requirements of the Unit Standard; c. Eligible to three (3) attempts to achieve the required competency within 14 days of the first attempt.

	Failure to achieve the required competency after three (3) attempts on the specific part of the assessment will require the person studying this Unit to re-enrol for the same Unit.
Important notes and definitions	<u>Notes:</u> 1. All training and assessment activities must be in accordance with Tonga National Building Code. 2. Assessors must comply with the Tonga national assessment and moderation requirements. <u>Definitions:</u> 1. <i>Adhesive</i> is a bonding material used to attach tiles to surfaces. 2. <i>Alignment</i> refers to positioning tiles to ensure straight lines and consistent patterns. 3. <i>Barriers and signage</i> refer to safety measures to restrict access and warn of hazards. 4. <i>Bedding</i> refers to the layer of adhesive or mortar used to fix tiles to the substrate. 5. <i>Damaged Tile</i> is a tile with defects such as cracks, chips, or loose bonding. 6. <i>Environmental Requirements</i> refer to procedures for managing waste, dust, and environmental impact. 7. <i>Grout</i> is a material used to fill joints between tiles. 8. <i>Hazard</i> refers to anything with the potential to cause harm. 9. <i>Job Safety and Environment Analysis (JSEA)</i> is a process for identifying hazards and implementing controls. 10. <i>Joint Spacing</i> refers to the gap between tiles to allow for grout application. 11. <i>Mortar</i> is a mixture of cement, sand, and water used for bedding tiles. 12. <i>MSDS (Material Safety Data Sheet)</i> is a document providing safety information about materials. 13. <i>OHS (Occupational Health and Safety)</i> refers to regulations and procedures to ensure workplace safety. 14. <i>Quality Requirements</i> refer to standards that ensure work meets specifications and expectations. 15. <i>Replacement Tile</i> is a new tile selected to match existing tiles in size, colour, and pattern.

	16. <i>Risk control</i> refers to measures taken to eliminate or reduce risk. 17. <i>Substrate</i> refers to the base surface to which tiles are applied. 18. <i>Tile Repair</i> refers to the process of removing and replacing damaged tiles to restore a surface. 19. <i>Tonga National Building Code</i> refers to standards governing construction work in Tonga
Public comments on unit	Please contact TNQAB National Qualifications Unit (email EnquireNQ@tnqab.to or Telephone 28136) if you like to discuss or suggest changes to the details of this unit.