

	Unit ID: 816
Domain	ROAD CONSTRUCTION AND MAINTENANCE – BITUMEN ROAD MAINTENANCE
Title:	Mix slurry by mixer and apply
Level: 2	Credits: 8

Purpose

This unit standard is intended for those who work in road construction and maintenance operations. People holding credit for this unit standard are able to: Plan and prepare for work; mix slurry; transfer slurry; apply slurry; complete work related documents; and clean up work area.

Special Notes

1. Entry information:

Prerequisite

- Unit ID 712 - *Comply with health, safety and environmental rules and regulations in road construction and maintenance work operations.*

2. Quality in this unit standard means adherence to contract requirements and workplace instructions.
3. Expected worksite production target are to be met.
4. Assessment evidence may be collected from a real workplace, a simulated workplace or an appropriately simulated environment in which road construction and maintenance operations are carried out.
5. Safe working practices include but are not limited to day-to-day observation of safety policies and procedures and compliance with workplace procedures.
6. Performance of all elements in this unit standard must comply with all relevant legal and workplace requirements, contractual agreement and/or manufacturers' specifications.
7. Regulations and legislation relevant to this unit standard include but are not limited to the following:
 - Labour Act, No. 11 of 2007
 - Occupational Health and Safety Regulations No. 18, 1997
 - Road Traffic and Transport Regulations No. 52, 1999 and Government Notice No 53 Road Traffic and Transport Regulations
 - Road Ordinance 1972 and other relevant legislations and all subsequent amendments.

Quality Assurance Requirements

This unit standard and others within this subfield may be awarded by institutions which meet the accreditation requirements set by the Namibia Qualifications Authority and the Namibia Training Authority and which comply with the national assessment and

moderation requirements. Details of specific accreditation requirements and the national assessment arrangements are available from the Namibia Qualifications Authority and the Namibia Training Authority. All approved unit standards, qualifications and national assessment arrangements are available on the Namibia Training Authority website www.nta.com.na.

Elements and Performance Criteria

Element 1: Plan and prepare for work

Range

Plans refer to construction plans, which include surface preparation and repairs, application of materials, worksite control, environmental issues, public safety, and work plans for one-day operations only.

Specifications include slurry design, layer thickness and compaction requirements.

Work activities include type and quantities of materials, tools and equipment; plants; personnel; the work sequence; time frame; handling arrangements to maintain productive workflow and to assure the quality and minimisation of waste.

Performance Criteria

- 1.1 Work instructions, including plans, specifications, quality requirements and operational details are obtained, explained, clarified and applied to the allocated task.
- 1.2 Safety requirements, including personal protective clothing and equipment are obtained from the site safety plan, workplace policies and procedures, and applied to the allocated task.
- 1.3 Traffic control requirements are obtained and implemented according to workplace requirements.
- 1.4 Plant, tools, fuel, lubricants, equipment, attachments and accessories selected to carry out tasks are checked for consistency with the requirements of the job, their usability and any faults rectified or reported prior to commencement of work.
- 1.5 Environmental protection requirements are identified from the project environmental management plan and applied to the allocated task.
- 1.6 Work activities are clarified with the team supervisor.
- 1.7 Work area is checked for hazards including the absence of signs and traffic control. All hazards are identified and corrective action taken in accordance to workplace procedures.
- 1.8 Road furniture is protected as required by the proposed task.

Element 2: Mix slurry

Range

Materials include bitumen products, additives and aggregates.

Performance Criteria

- 2.1 The quantities and quality of materials are confirmed to achieve the slurry design specifications.
- 2.2 The mixer is started and operated as per the manufacturers' specifications.
- 2.3 The materials are mixed in such a way as to provide slurry to the correct specifications.
- 2.4 Tools and equipment are used in accordance to their design purpose.
- 2.5 Work is carried out according to work place safety requirements.

Element 3: Transfer slurry

Performance Criteria

- 3.1 Mixed slurry is poured into a wheelbarrow without excessive spillage.
- 3.2 Slurry is transported to the correct work area without excessive spillage.
- 3.3 Transfer is carried out according to work place safety requirements.

Element 4: Apply slurry

Performance Criteria

- 4.1 The area is checked as been demarcated to indicate the working area.
- 4.2 The surface is been checked as been prepared in such a way as to comply with specifications.
- 4.3 The slurry is applied in a manner that ensures there is no breaking of the emulsion and that there is no formation of lumps.
- 4.4 The slurry is spread evenly and consistently over the width of the surface.
- 4.5 A next layer, if required, is applied evenly and consistently at the appropriate time according to the correct specification.
- 4.6 Tools and equipment are used in accordance with their design purpose.
- 4.7 Application is carried out according to workplace safety requirements.

Element 5: Complete work related documents

Performance Criteria

- 5.1 Work related documents are completed in accordance with contract and workplace requirements.
- 5.2 Maintenance and service related documents are completed in accordance with manufacturer and workplace requirements.
- 5.3 Documents related to accidents or other incidents are completed in accordance with workplace requirements.

Element 6: Clean up work area

Performance Criteria

- 6.1 Work area is cleared and materials disposed of or recycled in accordance with project environment management plan.
- 6.2 Tools and equipments are cleaned, checked, maintained, serviced and stored in accordance with manufacturers' recommendations and standard work practices.
- 6.3 Road furniture protection material is disposed of in an environmentally safe manner as per company policy.
- 6.4 Safety barricades are uplifted and temporary traffic control signs are removed in a safe manner.
- 6.5 Unused materials are safely stored and stacked for future use.

Registration Data

Subfield:	Road Construction and Maintenance
Date first registered:	
Date this version registered:	
Anticipated review:	
Body responsible for review:	Namibia Training Authority