

CERTIFICATE OF ACCREDITATION

In terms of section 22(2) (b) of the Accreditation for Conformity Assessment, Calibration and Good Laboratory Practice Act, 2006 (Act 19 of 2006), read with sections 23(1), (2) and (3) of the said Act, I hereby certify that:-

STEYN WILSON LABORATORIES (PTY) LTD

Co. Reg. No.: 2017/305308/07

Facility Accreditation Number: **T0835**

is a South African National Accreditation System accredited facility
provided that all conditions and requirements are complied with

This certificate is valid as per the scope as stated in the accompanying schedule of accreditation,
Annexure "A", bearing the above accreditation number for

CIVIL ENGINEERING TESTING

The facility is accredited in accordance with the recognised International Standard

ISO/IEC 17025:2017

The accreditation demonstrates technical competency for a defined scope and the operation of a
quality management system

While this certificate remains valid, the Accredited Facility named above is authorised to
use the relevant accreditation symbol to issue facility reports and/or certificates

Mr R Josias
Chief Executive Officer

Effective Date: 19 March 2018
Certificate Expires: 18 March 2023

ANNEXURE A

SCHEDULE OF ACCREDITATION

Facility Number: **T0835**

Permanent Address of Laboratory:

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 7581

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Technical Signatories:

Mr J Steyn (All Methods)
 Mr R Wilson (All Methods)
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 Mrs MM Steyn (All Methods)
 Mr J Brits (All Methods)
 Mr F Coetzee (All Methods)

Nominated Representative:

Mrs M Steyn

Issue No.: 04

Date of Issue: 18 January 2021

Expiry Date: 18 March 2023

Materials / Products Tested	Type of Tests / Properties Measured, Range of Measurement	Standard Specifications, Techniques / Equipment Used
Soil, Gravel and Sand	Division of sample using a riffler	TMH5 MD1
	Division of a sample by quartering	TMH5 MD2
	Wet preparation and particle size analysis	SANS 3001 GR1
	Dry preparation and dry particle size analysis of gravels and sands	SANS 3001 GR2
	Determination of the one-point liquid limit, plastic limit, plasticity index and linear shrinkage	SANS 3001 GR10
	Determination of the liquid limit with the two-point method	SANS 3001 GR11
	Determination of the flow curve liquid limit	SANS 3001 GR12
	Determination of the moisture content by oven-drying	SANS 3001 GR20
	Determination of the maximum dry density and optimum moisture content	SANS 3001 GR30
	Determination of the maximum dry density and optimum moisture content of laboratory mixed cementitious stabilized materials	SANS 3001 GR31
	Determination of the california bearing ratio	SANS 3001 GR40
Determination of the carlifornia bearing ratio of lime treated materials	SANS 3001 GR41	

Aggregates

Preparation, compaction and curing of specimens of laboratory mixed cementitiously stabilized materials	SANS 3001 GR50
Sampling, preparation, compaction and curing of field mixed freshly cementitiously stabilized materials including the determination of the maximum dry density and optimum moisture content	SANS 3001 GR51
Determination of the unconfined compressive strength of compacted and cured specimens of cementitiously stabilized materials	SANS 3001 GR53
Determination of the indirect tensile strength of compacted and cured specimens of cementitiously stabilized materials	SANS 3001 GR54
Determination of the wet-dry durability of compacted and cured specimens of cementitiously stabilized materials by hand brushing	SANS 3001 GR55
Particle size analysis of aggregate by sieving	SANS 3001 AG1
Determination of the average least dimension of aggregates by direct measurement	SANS 3001 AG2
Determination of the average least dimension of aggregates by computation	SANS 3001 AG3
Determination of the flakiness index of coarse aggregate	SANS 3001 AG4
ACV (aggregate crushing value) and 10% FACT (fines aggregate crushing test) values of coarse aggregates	SANS 3001 AG10
Determination of rock durability using 10 % FACT (fines aggregate crushing test) values after soaking in ethylene glycol	SANS 3001 AG15
Determination of the loose and compacted bulk density of course and fine aggregates	TMH1 B9
Determination of the bulk density, apparent density and water absorption of aggregates particles retained on the 5.0mm sieve for road construction materials	SANS 3001 AG20
Determination of the bulk density, apparent density and water absorption of aggregate particles passing the 5 mm sieve for road construction materials	SANS 3001 AG21

Chemical

Apparent density of crushed stone base	SANS 3001 AG22
Particle and relative densities of aggregates	SANS 3001 GR23
Unconfined Compressive Strength of Intact Rock Core Specimens -UCS ROCK CORES	ASTM D2938
Determination of the Point Load Strength Index of Rock - POINT LOAD TEST	ASTM D5731
Determination of the ethylene glycol durability index for rock	SANS 3001 AG14
Durability Mill Index	SANS 3001 AG16
Particle size of material smaller than 2mm	ASTM D422
Sand equivalent value of fine aggregates	SANS 3001 AG5
Determination of the pH value of a soil suspension	TMH 1 A20
Determination of the electrical conductivity of a saturated soil paste and water	TMH 1 A21T
Determination of the ethylene glycol durability index for rock	SANS 3001 AG14
Determination of the initial stabilizer consumption of soils and gravels	SANS 3001 AG57
Determination of the cement or lime content of stabilized materials by means of the back-titration (acid base) method	SANS 3001 AG58
Organic impurities in fine aggregates	SANS 5832
Detection of sugar in fine aggregates	SANS 5833
Soluble Deleterious Impurities in fine aggregates	SANS 5834
Chloride content of aggregates	SANS 202
Total water-soluble salts content of fines in aggregates	SANS 5849
Deleterious clay content of the fines in aggregate (methylene blue adsorption indicator test)	SANS 6243
Determination of Thermal Conductivity & Resistivity of Soil and Soft Rock by Thermal Needle Probe	ASTM D5334

Concrete, Blocks and Paver

Mixed fresh concrete in laboratory	SANS 861-1
Sampling of freshly mixed concrete	SANS 861-2
Making and curing of concrete cubes	SANS 861-3
Consistence of freshly mixed concrete (Slump test)	SANS 862-1
Compressive strength of hardened concrete	SANS 863
The drilling, preparation, and testing for compressive strength of cores taken from hardened concrete	SANS 865
Concrete paving blocks - Dimensions	SANS 1058 Clause 6.3
Concrete paving blocks - Tensile splitting strength	SANS 1058 Clause 6.4
Concrete paving blocks - Abrasion resistance	SANS 1058 Clause 6.5
Concrete paving blocks – Water absorption	SANS 1058 Clause 6.6
Concrete Masonry units: Dimensions	SANS 1215 Clause 5.3
Concrete Masonry units: Squareness	SANS 1215 Clause 5.4
Concrete Masonry units: Compressive Strength	SANS 1215 Clause 5.5
Burnt clay masonry units: Dimensions	SANS 227 Clause 6.4
Burnt clay masonry units: Compressive Strength	SANS 227 Clause 6.6
Burnt clay masonry units: Water Absorption	SANS 227 Clause 6.9
Oxygen Permeability	SANS 3001 CO3-2
Chloride Conductivity	SANS 3001 CO3-3
Water Sorptivity	UCT Manual Part 3

Asphalt

Making of asphalt briquettes for marshall stability, flow and quotient	SANS 3001 AS1
Determination of marshall tests stability, flow and quotient	SANS 3001 AS2
Determination of bulk density and void content of compacted asphalt	SANS 3001 AS10
Determination of the maximum void-less density of asphalt mixes and the quantity of binder absorbed by the aggregate	SANS 3001 AS11
Determination of the soluble binder content and particle size analysis of an asphalt mix	SANS 3001 AS20
Determination of moisture in asphalt	SANS 3001 AS23

	Tentative method of the determination of the indirect tensile strength of asphalt material	TMH C12T
	Asphalt water permeability - constant head	BS1377 Part 6
	Asphalt air permeability	TRH8 APPENDIX C
Bitumen	Sampling of modified binders	SABITA MANUAL - TG1 MB1
	Sample preparation	SABITA MANUAL - TG1 MB2
	Softening Point of Bitumen (Ring-and-Ball Apparatus)	ASTM D36
	Penetration of Bituminous Materials	ASTM D5
Field Testing and Sampling	Determination of in-situ density using a nuclear gauge	SANS 3001 NG5
	Measurement of the in-situ strength of soils by the dynamic cone penetrometer (DCP)	TMH6 ST6
	Ball penetration test for the design of surfacing seals	SANS 3001 BT10
	Texture depth measurement for the design of surfacing seal	SANS 3001 BT11
	Determination of in-situ water permeability of bituminous road surfacing or base course layers by using the falling head (Marvil) apparatus	SANS 3001 BT12
	Determination of the non-repetitive static plate load test	MODIFIED AASHTO T222-78
	Double Ring Infiltrometer	ASTM D3385
	Sampling from a sample pit in natural gravel, soils and sand	TMH5 MA2
	Sampling from stockpiles	TMH5 MB1
	Sampling of ready-mix asphalt	TMH5 MB7
	Sampling of slurry mixes	TMH5 MB8
	Sampling of freshly mixed concrete	TMH5 MB9
	Sampling of treated pavement layers to determine content and distribution of the stabilizer agent	TMH5 MB10
	Sampling of road pavement layers	TMH5 MC1
	Sampling of asphalt and concrete from a completed layer or structure	TMH5 MC2
Geotechnical	Moisture Content	BS1377: Part 2
	Dry Density and Bulk Density of Undisturbed Soil Sample (Wax Coating Method)	BS1377: Part 2 and ASTM D7263
	Porosity	BS1377: Part 2 and ASTM D7263
	Specific Gravity	TMH1 A12T

Falling Head Permeability	ASTM D2434 and KH Head
Constant Head Permeability	ASTM D2434 and KH Head
Triaxial Flexible Wall Permeability	BS1377: Part 6
Shearbox – Direct Shear	BS1377: Part 7
Shearbox – Residual Shear	BS1377: Part 7
Oedometer – One Dimensional Consolidation	BS1377: Part 5
Oedometer -Collapse Potential	BS1377: Part 5
Oedometer -Swell Pressure and Swell Percentage	BS1377: Part 5
Double Oedometer	BS1377: Part 5
Consolidated Undrained Triaxial with Pore Pressure Readings	BS1377: Part 8
Consolidated Drained Triaxial with Volume Change Readings	BS1377: Part 8
Unconsolidated Undrained Triaxial	BS1377: Part 7

Original Date of Accreditation: 19 March 2018

ISSUED BY THE SOUTH AFRICAN NATIONAL ACCREDITATION SYSTEM

Accreditation Manager