

# **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:-*

**GEOSURE (PTY) LTD**

**Co. Reg. No.: 1992/03145/07**

Facility Accreditation Number: **T0483**

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 17025:2005**

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

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**Mr R Josias**  
**Chief Executive Officer**

**Effective Date: 02 December 2015**  
**Certificate Expires: 01 December 2020**

## ANNEXURE A

### SCHEDULE OF ACCREDITATION

Facility Number: **T0483**

**Permanent Address of Laboratory:**

Geosure (Pty) Ltd  
122 Intersite Avenue  
Umgeni Business Park  
Durban  
4091

**Postal Address:**

PO Box 1461  
Westville  
Durban  
3630

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**Technical Signatories:**

Mr B Hariram  
Mr B Govender (All Soils-SANS 3001 series;  
All concrete)  
Mrs N Gabriel (SANS 5860,5861-1,5861-2,5861-3,  
5862-1,5863)  
Mr P Naidoo (SANS 5860,5861-1,5861-2,5861-3,  
5862-1,5863, TMH1 A1(a), A2, A3, A4, A7, A8,  
A9, A10(b), A5)  
Mr D Ramcharan (All Soils-SANS 3001 series;  
All concrete)

**Nominated Representative:**

Mr B Hariram

**Issue No.:** 10

**Date of Issue:** 12 April 2018

**Expiry Date:** 01 December 2020

Material or Products Tested	Type of Tests/ Property measured, Range of measurement	Standard Specifications, Techniques / Equipment Used
<b>Gravels, Sands and Soils</b>	Wet and Dry sieve analysis of soils	TMH1 A1(a)
	Liquid limit of soils	TMH1 A2
	Plastic limit and Plasticity index of soils	TMH1 A3
	Linear shrinkage of soils	TMH1 A4
	Material passing 0.075mm sieve	TMH1 A5
	The maximum dry density and optimum moisture content of gravel, soil and sand	TMH1 A7
	California Bearing Ratio of untreated soils and gravel	TMH1 A8
	California Bearing Ratio of stabilized soils gravel	TMH1 A9
	In-place dry density and moisture content of soils and gravels by nuclear methods	TMH1 A10(b)

Unconfined compressive strength of stabilized soils, gravels and sands (Rapid Curing)	TMH1 A14
The determination of the cement or lime content of stabilized materials by means of the back titration (acid base)	TMH1 A15d
Indirect tensile strength of stabilized soils, gravels and sands (Rapid Curing)	TMH1 A13T
Indirect tensile strength of stabilized soils, gravels and sands (Normal Curing)	TMH1 A16T
The determination of organic impurities in sand for concrete	TMH1 B6
Determination of in situ density using a nuclear density gauge	TMH1 A10(b)
Wet preparation and particle size analysis	SANS 3001-GR1
Wet preparation and air-drying of samples for plasticity index and hydrometer tests	SANS 3001-GR5
Determination of the one-point liquid limit, plastic, plasticity index and linear shrinkage	SANS 3001-GR10
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 cementitiously stabilized materials	SANS 3001-GR31
Determination of the California bearing ratio	SANS 3001-GR40
Determination of the California bearing ratio of lime treated materials	SANS 3001-GR41
Preparation, compaction and curing of specimens of 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

	Sampling and preparation of cored specimens of field compacted, matured, cementitiously stabilized material	SANS 3001-GR52
	Determination of the unconfined compressive strength and of un compacted and cured specimens of cementitiously stabilized materials	SANS 3001-GR53
	Determination of the indirect tensile strength 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
	Determination of the initial stabilizer consumption of soils and gravels	SANS 3001-GR57
	Determination of the initial stabilizer consumption of soils and gravels	SANS 3001-GR58
Sampling	Hydrometer analysis	ASTM D422
	Sampling from a sampling pit in natural gravel, soil and sand	TMH5 MA2
	Sampling of stockpiles	TMH5 MB1
	Sampling of Bituminous Binders	TMH5 MB4
	Sampling of premixed asphalt	TMH5 MB7
	Sampling of slurry mixtures	TMH5 MB8
	Sampling of freshly mixed concrete	TMH5 MB9
	Sampling of treated pavement layers to determine content and distribution of the stabilizer	TMH5 MB10
	Sampling of road pavement layers	TMH5 MC1
	Sampling of asphalt and concrete from a completed layer or structure	TMH5 MC2
	Division of a sample using the riffler	TMH5 MD1
	Division of a sample by quartering	TMH5 MD2

Aggregate	The determination of the bulk density of coarse and fine aggregates	TMH1 B9
	Sieve Analysis of aggregates	TMH1 B4
	Particle size analysis of aggregates by sieving	SANS 3001-AG1
	Determination of the average least dimension of aggregates by direct measurement	SANS 3001-AG2
	Determination of the flakiness index of coarse aggregate	SANS 3001-AG4
	Sand equivalent value of fine aggregates	SANS 3001- AG5
	ACV (aggregate crushing value) and 10 % FACT (fines aggregate crushing test) values of coarse aggregates	SANS 3001-AG10
	Polished-stone value of aggregates	SANS 3001-AG11
	Determination of rock durability using 10% FACT (fines aggregate crushing test) values after soaking in ethylene glycol	SANS 3001-AG15
	Determination of the bulk density, apparent density and water absorption of aggregate particles retained on the 5 mm 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
	Apparent density of crushed stone base	SANS 3001-AG22
	Particle and relative densities of aggregates	SANS 3001-AG23
Asphalt	Bulk relative density of compacted Bituminous mixture and calculation of the voids content	TMH1 C3
	The maximum theoretical relative density of asphalt mixes (Rice's method)	TMH1 C4
	Making of asphalt briquettes for Marshall tests and other specialized tests	SANS 3001-AS1
	Determination of Marshall stability, flow and quotient	SANS 3001-AS2
		SANS 3001-AS10

	Determination of bulk density and void content of compacted asphalt	
	Determination of the maximum voidless 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
Concrete	Crushing of Concrete Cubes	SANS 5863
	Determination of the slump	SANS 5862-1
	Sampling, curing and making of concrete cubes	SANS 5860, 5861-1, 5861-2, 5861-3
	Determination of the slump	SANS 5862-1
	Sampling, curing and making of concrete cubes	SANS 5860,5861-1,5861-2,5861-3
	Sampling, preparation and testing of concrete cores	SABS 865
	Making and curing of tests specimens and compressive strength of hardened concrete	SANS 5861-3 SANS 5863
	Consistence of freshly mixed concrete-Slump test	SANS 5862-1
	Sampling and Compressive Strength of concrete cores	SANS 5865
Geotechnical	Determination of one dimensional consolidation properties	BS 1377-5
	Determination of swelling and collapse characteristics	BS 1377-5
	Determination of shear strength by direct shear (small shear-box)	BS 1377-7
	Determination of undrained shear strength without pore water pressure measurement	BS 1377-7
	Consolidated Undrained Triaxial compression test with measurement of pore water pressure	BS 1377-8
	Consolidated Drained Triaxial compression test with measurement of volume change	BS 1377-8

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Original Date of Accreditation: 02 December 2010

ISSUED BY THE SOUTH AFRICAN NATIONAL ACCREDITATION SYSTEM

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**Accreditation Manager**