

CERTIFICATE OF ACCREDITATION

RANKIN ENGINEERING CONSULTANTS

Company Registration No.21082

Facility Accreditation Number: TEST-3 0004

is a SADCAS accredited Testing Laboratory
provided that all SADCAS conditions are complied with

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


CIVIL ENGINEERING

The facility is accredited in accordance with the recognized International Standard

ISO/IEC 17025:2005

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

*SADCAS is a subsidiarity organization of SADC. A memorandum of understanding between SADC and
SADCAS serves as the basis for the recognition of SADCAS by SADC Member States
as a multi-economy accreditation body*



Mrs Maureen P Mutasa
SADCAS Chief Executive Officer

Original date of Accreditation: 25 January 2019
Effective Date (Issue No: 2): 05 August 2019
Certificate Expires: 30 November 2020

ANNEXURE A
SCHEDULE OF ACCREDITATION
CIVIL ENGINEERING

Laboratory Accreditation Number: TEST-3 0004 (ISO/IEC 17025:2005)

<p>Permanent Address of Laboratory Rankin Engineering Consultants Rankin House 11038 Chozi Road Northmead Lusaka Zambia</p> <p>Postal Address P.O. Box 50566 Lusaka Zambia</p> <p>Tel : +260 211 290085 Cell : +260 977 758800 Email : tphiri@rankinengineering.com</p>	<p>Technical Signatories : Mr D Linsel (All methods) Ms S Ndovi (All methods)</p> <p>Nominated Representative : Ms T Phiri</p> <p>Issue No : 02 Date of Issue : 05 August 2019 Expiry Date : 30 November 2020</p>	
MATERIALS/PRODUCTS TESTED	TYPES OF TESTS/ PROPERTIES MEASURED, RANGE OF MEASUREMENT	STANDARD SPECIFICATIONS, EQUIPMENT/ TECHNIQUES USED
Aggregates	Particle Size Analysis by sieving Aggregate Crush Value (ACV) and 10% FACT values of coarse aggregates Determination of the flakiness of coarse aggregate	SANS 3001-AG: 2014 Part AG1 SANS 3001-AG: 2012 Part AG10 SANS 3001-AG4: 2014 Part AG4
Asphalt	Determination of bulk density and void content of compacted asphalt	SANS 3001-AS10:2011 Part AS10
Bitumen	Effect of heat and air on a moving film of Asphalt (Rolling Thin Film Oven Test) Penetration grade Bitumen Viscosity determination of Asphalt at elevated temperatures using a rotational Viscometer Softening point of Bitumen (Ring-and-Ball apparatus)	ASTM D2872-12 BS EN 1426:2015 ASTM D4402-15 ASTM D36/D36M-14
Gravel	Wet preparation and particle size analysis	SANS 3001-GR1:2013 Part GR1

ANNEXURE A

Laboratory Accreditation No: TEST-3 0004 (ISO/IEC 17025:2005)

Issue No: 02

Date of Issue: 05 August 2019

Date of Expiry: 30 November 2020

MATERIALS/PRODUCTS TESTED	TYPES OF TESTS/ PROPERTIES MEASURED, RANGE OF MEASUREMENT	STANDARD SPECIFICATIONS, EQUIPMENT/ TECHNIQUES USED
Gravel	Determination of the California Bearing Ratio Determination of moisture content by oven drying Determination of the maximum dry density and optimum moisture content Determination of the flow curve liquid limit Determination of the one-point liquid limit, plastic limit, plasticity index and linear shrinkage	SANS 3001-GR40:2013 Part GR40 SANS 3001-GR20:2010 Part GR20 SANS 3001-GR30:2013 Part GR30 SANS 3001-GR12:2013 Part GR12 SANS 3001-GR10:2013 Part GR10

Original date of accreditation: 25 January 2019

Page 2 of 2



Jeanne Françoise Ranorovelo
SADCAS Technical Manager