

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:-

ARCHIMEDES LABORATORY SOLUTIONS CC

Co. Reg No: 2010/064440/23

Accreditation Number: 865

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

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

FORCE METROLOGY

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
laboratory quality management system

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

Mr T Baleni
Acting Chief Executive Officer

Effective Date: 22 September 2021
Certificate Expires: 17 December 2025

ANNEXURE A

SCOPE OF ACCREDITATION

FORCE METROLOGY

Accreditation Number: 865

Permanent Address of Laboratory: Archimedes Laboratory Solutions cc 50 9 th Avenue Northmead Benoni 1501		Technical Signatories: Mr DDJ Keet Mr Z Lloyd		
Postal Address: P O Box 13752 Northmead 1511		Nominated Representative: Mr DDJ Keet		
Tel: (011) 425-6837/082 900 0382 Fax: 086 566 4556 E-mail: info@archlabs.co.za or dion@archlabs.co.za		Issue No.: 10 Date of Issue: 08 August 2022 Expiry Date: 17 December 2025		
ITEM	MEASURED QUANTITY OR TYPE OF GAUGE OR INSTRUMENT	RANGE OF MEASURED QUANTITY	CALIBRATION AND MEASUREMENT CAPABILITY EXPRESSED AS AN UNCERTAINTY (±)	METHOD / PROCEDURE
4	FORCE			
4.1	Tension			
4.1.1	Force Measuring Devices	0,5 N to 1 kN 1 kN to 100 kN 100 kN to 500 kN	0,07 % 0,10 % 0,20 %	Deadweight method or comparison measurement with reference load cell.
4.2	Compression			
4.2.1	Uniaxial Testing Machines	0.5 N to 1 kN 1 kN to 100 kN 100 kN to 500 kN 500 kN to 2 000 kN	0,07 % 0,10 % 0,20 % 0,30 %	Deadweight method or comparison measurement with reference load cell.
4.2.2	Concrete Testing Machines	1 kN to 100 kN 100 kN to 500 kN 500 kN to 2 000 kN	0,10 % 0,20 % 0,30 %	Comparison measurement with reference load cell.
4.2.3	California Bearing Ratio (CBR) and Marshall Presses	1 kN to 10 kN 10 kN to 200 kN	0,10 % 0,20 %	Comparison measurement with reference load cell.

Original Date of Accreditation: 20 May 2011

Page 1 of 2

The CMC, expressed as an expanded uncertainty of measurement, is stated as the standard uncertainty of measurement multiplied by a coverage factor $k = 2$, corresponding to a confidence level of approximately 95%

Accreditation Manager

ANNEXURE A

Accreditation No.: 865
Date of Issue: 08 August 2022
Expiry Date: 17 December 2025

ITEM	MEASURED QUANTITY OR TYPE OF GAUGE OR INSTRUMENT	RANGE OF MEASURED QUANTITY	CALIBRATION AND MEASUREMENT CAPABILITY EXPRESSED AS AN UNCERTAINTY (±)	METHOD / PROCEDURE
4.2.4	Load Cells/ Transducers	0,5 N to 1 kN 1 kN to 100 kN 100 kN to 500 kN 500 kN to 2 000 kN	0,07 % 0,10 % 0,20 % 0,30 %	Deadweight method or comparison measurement with reference load cell.
4.3	Tension and Compression			
4.3.1	Force Measuring Devices	0,5 N to 1 kN 1 kN to 100 kN 100 kN to 500 kN	0,07 % 0,10 % 0,20 %	Deadweight method or comparison measurement with reference load cell.
4.3.2	Uniaxial Testing Machine			
4.3.3	Loadcells/Transducers			
4.4	Strain Determination Equipment			
4.4.1	Extension Measurement	0 mm to 600 mm	0,04 mm	Comparison method against reference height gauge
4.4.2	Speed	0 mm/min to 1 000 mm/min	0,01 mm/min	Calculated from measured time and displacement.
4.4.3	Strain	0 mm to 50 mm 0 mm to 600 mm	0,01 mm 0,04 mm	Comparison against reference micrometer or reference height gauge.
4.5	Rate of Applied Force			
4.5.1	Uniaxial Testing Machine	0,5 N to 1 kN/min 1 kN to 100 kN/min 100 kN to 500 kN/min 500 kN to 2 000 kN/min	0,15 % 0,20 % 0,30 % 0,40 %	Calibration by calculation of Force, as measured by reference Force Transducer divided by time, as measured by a Reference Stopwatch
9.0	On-site calibrations for items 4.1, 4.2, 4.3, 4.4 & 4.5 above			

Original Date of Accreditation: 20 May 2011

Page 2 of 2

The CMC, expressed as an expanded uncertainty of measurement, is stated as the standard uncertainty of measurement multiplied by a coverage factor $k = 2$, corresponding to a confidence level of approximately 95%

ISSUED BY THE SOUTH AFRICAN NATIONAL ACCREDITATION SYSTEM

Accreditation Manager