CERTIFICATE OF ACCREDITATION

TANZANIA BUREAU OF STANDARDS (METROLOGY LABORATORY)

Established by the Standards Act No. 2 of 2009

Facility Accreditation Number: CAL-14 007

is a SADCAS accredited Calibration 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

TEMPERATURE METROLOGY

The facility is accredited in accordance with the recognized International Standard

ISO/IEC 17025:2017

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

Eve Christine Gadzikwa
SADCAS Chief Executive Officer

Date of Renewal of Accreditation: 11 February 2026
Effective Date (Issue No: 1): 16 February 2026
Certificate Expires: 15 February 2031

ANNEXURE A

SCHEDULE OF ACCREDITATION

TEMPERATURE METROLOGY

Laboratory Accreditation Number: CAL-14 007 (ISO/IEC 17025:2017)

Permanent Address of Laboratory
Tanzania Bureau of Standards
Metrology Laboratory
Morogoro/Sam Nujoma Road, Ubungo
Dar es Salaam
Tanzania

Postal Address
P O Box 9524
Dar es Salaam
Tanzania

Tel : +255 22 245 0206
Cell : +255 78 480 6143
Fax : +255 22 245 0959
Email : joseph.mahilla@tbs.go.tz

Technical Signatories :
Mr R B Sinkwai (All items)
Mr J Z Manyambani (Items 1, 2, 5, 7 & 8)
Mr J M Kadenge (Items 2, 3, 4 & 7)
Mr Z R Juma (Items 2, 4, 5, 6, 7 & 8)
Mr B R Shirima (Item 7)

Nominated Representative : Mr J J Mahilla

Issue No : 01
Date of Issue : 16 February 2026
Expiry Date : 15 February 2031

ITEM	MEASURED QUANTITY OR TYPE OF GAUGE OR INSTRUMENT	METHOD	RANGE OF MEASURED QUANTITY	CALIBRATION AND MEASUREMENT CAPABILITY EXPRESSED AS AN UNCERTAINTY (±)	
				At TBS	Onsite
1	Thermocouples	Internal: *MET-TEM-21* Reference: *EAL-G31, 1997* *SADCAS TR-26*	-30°C to 50°C 50°C to 200°C 200°C to 400°C	0.5°C 0.65°C 0.70°C	- - -
2	Ice Point	Internal: *MET-TEM-01* Reference: *Traceable Temperatures by J.V. Nicholas and D.R. White* *SADCAS TR-26*	0°C	0.05°C	-
3	Platinum Resistance Thermometers	Internal: *MET-TEM-24* Reference: *Traceable Temperatures by J.V. Nicholas and D.R. White* *SADCAS TR-26*	-30°C to 50°C 50°C to 200°C 200°C to 350°C	0.05°C 0.2°C 0.25°C	- - -
4	Liquid-in-Glass Thermometers	Internal: *MET-TEM-23 & MET-TEM-05; MET-TEM-57*	-30°C to 50°C	0.1°C	0.2°C

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%.

ANNEXURE A

Laboratory Accreditation No: CAL-14 007 (ISO/IEC 17025:2017)
Issue No: 01
Date of Issue: 16 February 2026
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ITEM	MEASURED QUANTITY OR TYPE OF GAUGE OR INSTRUMENT	METHOD	RANGE OF MEASURED QUANTITY	CALIBRATION AND MEASUREMENT CAPABILITY EXPRESSED AS AN UNCERTAINTY (±)	
4	Liquid-in-Glass Thermometers	Reference: *Calibration of Thermometers, Y C.R. Barber (NPL – UK)* SADCAS TR-26	50°C to 200°C	0.25°C	0.35°C
5	Digital Thermometer - RTD & Thermistor based	Internal: *MET-TEM-22; MET-TEM-57 & MET-TEM-05*	-30°C to 50°C 50°C to 200°C 200°C to 350°C	0.1°C 0.25°C 0.3°C	0.15°C 0.3°C 0.35°C
	Digital Thermometer – Thermocouple based	Reference: *Traceable Temperatures by J.V. Nicholas and D.R. White*	-30°C to 50°C 50°C to 200°C 200°C to 400°C	0.3°C 0.4°C 0.6°C	0.35°C 0.5°C 0.7°C
6	6.1 Autoclave Temperature 6.2 Autoclave Pressure 6.3 Autoclave Time	Internal: *MET-TEM-52 & MET-TEM-05* Reference: *Monitoring of Laboratory Steam Sterilizers NATA, Technical Note, January 1992.*	20°C to 140°C 0 bar to 4 bar 0 to 30 min	- - -	1.6°C 0.03 bar 14 s
7	Temperature Installations (Ovens, Incubators, Fridges/ Freezers, Liquid Baths, Cold Rooms) Furnaces	Internal: MET-TEM-51; *MET-TEM-53; MET-TEM-54; MET-TEM-55; MET-TEM-56 & MET-TEM-05* Reference: *Calibration Worx & various sources*	-30°C to 200°C -80°C to 1100°C	- -	0.5°C 3°C
8	Data Loggers	Internal: *MET-TEM-25* Reference: *SADCAS TR-26*	-40°C to 121°C	0.5°C	0.6°C

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%.

Pinkie J Malebe
SADCAS Technical Manager