

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:-

REPAIR AND METROLOGY SERVICES (PTY) LTD

Co. Reg. No.: 2004/021865/07

Accreditation Number: **329**

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

TEMPERATURE 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: 01 August 2021
Certificate Expires: 31 July 2026

ANNEXURE A

SCOPE OF ACCREDITATION

TEMPERATURE METROLOGY

Accreditation Number: 329

Permanent Address of Laboratory: Repair and Metrology Services (Pty) Ltd No 10 Enterprise Close Linbro Business Park Sandton 2065		Technical Signatories: Mr LR Wesson Mr J Van Pletzen Mr GJ van Staden (All except item 4.2)		
Postal Address: PO Box 10917 Vorna Valley 1686		Nominated Representative: Mr LR Wesson		
Tel: (011) 608-8550 Fax: (011) 608-0406 E-mail: lesw@repmet.co.za		Issue No.: 11 Date of Issue: 01 August 2021 Expiry Date: 31 July 2026		
ITEM	MEASURED QUANTITY OR TYPE OF GAUGE OR INSTRUMENT	RANGE OF MEASURED QUANTITY	CALIBRATION AND MEASUREMENT CAPABILITY EXPRESSED AS AN UNCERTAINTY (\pm)	METHOD / PROCEDURE
1	THERMOMETRY			
1.1	Thermocouples			
1.1.1	Noble Metal	0 °C to 600 °C 600 °C to 1 200 °C	0,5 K 3,0 K	Calibration by comparison with a reference thermometer in a bath, drywell, or furnace and or calibration against a fixed-point cell.
1.1.2	Base Metal	0 °C to 600 °C 600 °C to 1 200 °C	1,0 K 3,0 K	
1.1.4	Surface Temperature Probes	20 °C to 50 °C 50 °C to 100 °C 100 °C to 200 °C 200 °C to 300 °C 300 °C to 400 °C	0,8 K 1,7 K 2,3 K 4,5 K 5,5 K	Calibration by comparison with a reference thermometer on a hot plate.
1.4	Reference Temperature Sources			
1.4.1	Ice Point Reference	0,0 °C	0,05 K	Prepared in thermally insulated flask using distilled water and Ice.

Original Date of Accreditation: 01 December 2004

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%

Executive Accreditation

ANNEXURE A

Accreditation No.: 329
Date of Issue: 01 August 2021
Expiry Date: 31 July 2026

ITEM	MEASURED QUANTITY OR TYPE OF GAUGE OR INSTRUMENT	RANGE OF MEASURED QUANTITY	CALIBRATION AND MEASUREMENT CAPABILITY EXPRESSED AS AN UNCERTAINTY (\pm)	METHOD / PROCEDURE
1.2	Resistance Thermometers			
1.2.1	Platinum Resistance Thermometers (PT 100)	- 40 °C to 200 °C 200 °C to 600 °C	0,05 K 0,20 K	Calibration by comparison with a reference thermometer in a bath, drywell, or furnace and or calibration against a fixed-point cell.
1.2.2	Other Resistance Thermometers			
1.3	Thermometers			
1.3.2	Digital Thermometers	- 40 °C to 200 °C 200 °C to 600 °C 600 °C to 1 200 °C	0,05 K 0,20 K 3,0 K	Calibration by comparison with a reference thermometer in a bath, drywell, or furnace.
1.3.5	Radiation Thermometers IR Thermometers and Thermal Imagers	- 30 °C to 200 °C 200 °C to 500 °C 500 °C to 1 200 °C	2,0 K 5,0 K 6,0 K	Calibration using a radiation source and reference thermometer.
2	ELECTRICAL SIMULATION OF TEMPERATURE			
2.1	Thermocouple Simulation			
2.1.1	Digital Thermometers / Indicators	- 270 °C to 2 000 °C	0,1 K	Calibration by the sourcing or measurement of voltage equivalent to the Thermocouple type.
2.1.2	Temperature Transmitters			
2.1.3	Temperature Calibrators			
2.1.4	Cold Junction Compensation	0 °C to 30 °C	0,1 K	Calibration with a reference thermometer.
2.2	Resistance Simulation			
2.2.1	Digital Thermometers / Indicators	- 200 °C to 850 °C	0,1 K	Calibration by the sourcing or measurement of electrical resistance equivalent to the
2.2.2	Temperature Transmitters			
2.2.3	Temperature Calibrators			
3	TEMPERATURE SOURCES			
3.1	Calibration Sources			
3.1.1	Dry Block Calibrator	- 40 °C to 200 °C 200 °C to 600 °C 600 °C to 1 200 °C	0,05 K 0,20 K 5,0 K	By comparison to a reference thermometer placed into the boring of the calibrator.
4	TEMPERATURE INSTALLATIONS AND DEVICES			
4.2	Temperature Installations (Single location)			
4.2.1	Furnaces, Ovens	- 40 °C to 600 °C	1,0 K	By comparison to a reference thermometer located at an appropriate location within the device or installation.
4.2.2	Fridges and Freezers			
4.2.3	Incubators			
4.2.4	Liquid baths			
5	On-site calibration for items 1, 2 and 4			

Original Date of Accreditation: 01 December 2004

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

Executive Accreditation