

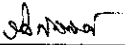
Scope of Accreditation for Calibration

Accreditation No. : CALIBRATION 0156

Laboratory Status : Permanent Site Temporary Mobile

Field of Measurement	Parameter/Range/Item	Best Measurement Capability*	Standard/Technique/Method/Equipment/Remark
2. Mass (cont.)	Electronic balance (cont.)		In-house method : CM-014 based on UKAS LAB 14 : 2006
	> 50 kg to 100 kg	1.5 g	
	> 100 kg to 200 kg	3.7 g	
	> 200 kg to 500 kg	11 g	In-house method : CM-051 based on UKAS LAB 14 : 2006
	Mechanic balance		
	Up to 500 g	0.90 g	
	> 500 g to 1 kg	1.0 g	
	> 1 kg to 2 kg	2.0 g	
	> 2 kg to 5 kg	4.0 g	
	> 5 kg to 7 kg	5.0 g	
	> 7 kg to 30 kg	12 g	
	> 30 kg to 50 kg	17 g	
	> 50 kg to 100 kg	58 g	
	> 100 kg to 300 kg	58 g	
	> 300 kg to 500 kg	83 g	
3. Temperature	Digital thermometer with sensor Resistance Temperature Detector (RTD)		In-house method : CM-003 by comparison with PRT in liquid bath and dry block
	-30 °C to 50 °C	0.14 °C	
	> 50 °C to 400 °C	0.19 °C	
	> 400 °C to 600 °C	0.21 °C	

* expressed as an uncertainty (+) which for k = 2, providing a level of confidence of approximately 95%



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3. Temperature (cont.)	Digital thermometer with sensor		In-house method : CM-003 by comparison with PRT in liquid bath and dry block
	Thermocouple		
	-30 °C to 50 °C	0.31 °C	
	> 50 °C to 100 °C	0.51 °C	
	> 100 °C to 150 °C	0.73 °C	
	> 150 °C to 200 °C	1.0 °C	
	> 200 °C to 250 °C	1.2 °C	
	> 250 °C to 300 °C	1.5 °C	
	> 300 °C to 400 °C	2.0 °C	
	> 400 °C to 500 °C	2.4 °C	
	> 500 °C to 600 °C	2.8 °C	
	Dry block		In-house method : CM-005 by comparison with PRT
	-30 °C to 100 °C	0.20 °C	
	> 100 °C to 200 °C	0.21 °C	
	> 200 °C to 300 °C	0.22 °C	
> 300 °C to 400 °C	0.26 °C		
Platinum Resistance Thermometer (PRT)		In-house method : CM-012 by comparison with semi-SPRT in liquid bath and dry block	
-30 °C to 50 °C	0.16 °C		
> 50 °C to 400 °C	0.14 °C		
> 400 °C to 600 °C	0.19 °C		

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Signature

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3. Temperature (cont.)	Liquid bath		In-house method : CM-007 by comparison with PRT
	-30 °C to 250 °C	0.29 °C	
	Data logger with sensor		In-house method : CM-010 by comparison with semi-SPRT in liquid bath and dry block
	Resistance Temperature Detector (RTD)		
	-30 °C to 50 °C	0.15 °C	
	> 50 °C to 400 °C	0.19 °C	
	> 400 °C to 600 °C	0.22 °C	
	Thermocouple		
	-30 °C to 50 °C	0.34 °C	
	> 50 °C to 100 °C	0.51 °C	
	> 100 °C to 150 °C	0.73 °C	
	> 150 °C to 200 °C	0.95 °C	
	> 200 °C to 250 °C	1.2 °C	
	Liquid bath (5 positions)		In-house method : CM-008 by comparison with data logger with thermocouple sensor
30 °C to 50 °C	0.60 °C		
> 50 °C to 100 °C	0.80 °C		
> 100 °C to 150 °C	1.2 °C		
> 150 °C to 200 °C	1.5 °C		

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Field of Measurement	Parameter/Range/Item	Best Measurement Capability*	Standard/Technique/Method/Equipment/Remark
3. Temperature (cont.)	Liquid in glass thermometer		In-house method : CM-004 by comparison with semi-SPRT in liquid bath
	Total immersion -30 °C to 125 °C	0.16 °C	
	Partial immersion -30 °C to 50 °C > 50 °C to 125 °C	0.17 °C 0.18 °C	
4. Chemical	Volumetric flask		In-house method : CM-052 based on ASTM E 542-01
	10 ml	6.0 µl	
	25 ml	7.0 µl	
	50 ml	10 µl	
	100 ml	18 µl	
	200 ml	34 µl	
	250 ml	40 µl	
	500 ml	66 µl	
	1 000 ml	0.13 ml	
	Buret		In-house method : CM-053 based on ASTM E 542-01
	0.1 ml to 50 ml	11 µl	
	Measuring pipet		In-house method : CM-055 based on ASTM E 542-01
	0.1 ml to 1 ml	3.0 µl	
0.1 ml to 5 ml	3.0 µl		
0.1 ml to 10 ml	4.0 µl		
	0.1 ml to 25 ml	6.5 µl	

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