

Laboratory Central Materials and Processes Laboratory, Hindustan Aeronautics Limited (Bangalore Complex), Foundry & Forge Division, Hindustan Aeronautics Limited, Bangalore, Karnataka

Accreditation Standard ISO/IEC 17025: 2005

Certificate Number CC-2598

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Validity 05.03.2018 to 04.03.2020

Last Amended on -

Sl.	Quantity Measured / Instrument	Range/Frequency	*Calibration Measurement Capability (\pm)	Remarks
<u>MECHANICAL CALIBRATION</u>				
I.	UTM, TENSION CREEP AND TORSION TESTING MACHINE			
1.	Verification of Uniaxial Testing Machines [#] Compression Tension	0.2 kN to 100 kN 0.2 kN to 2 kN 2 kN to 100 kN	0.54 % 1.2 % 0.57 %	Using Force Proving Instruments/ Load Cells As per IS 1828 (Part-I) ISO 7500
II.	HARDNESS TESTING MACHINES			
1.	Verification of Rockwell Hardness Tester ^{\$} HRB HRC	40 HRBW to 100 HRBW 20 HRC to 65 HRC	1.3 HRBW 0.5 HRC	Using Standard Hardness Test Blocks By Indirect Verification as per ASTM E-18

Vishal Shukla
Convenor

Avijit Das
Program Director

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<u>THERMAL CALIBRATION</u>				
1.	TEMPERATURE			
1.	RTD [§]	50 °C to 150 °C	1.26 °C	Using SPRT and Temperature Calibrator By Comparison Method
2.	Thermocouples [§]	150 °C to 1000 °C	2.41 °C	Using R Type Thermocouple and Temperature Calibration By Comparison Method
3.	Ovens And Furnaces [*]	90 °C to 300 °C 400 °C to 1050 °C	4.40 °C 8.90 °C	Using Calibrated Thermocouples and Data Logger By Multi-Point Calibration

* Measurement Capability is expressed as an uncertainty (\pm) at a confidence probability of 95%

§ Only in Permanent Laboratory

* Only for Site Calibration

The laboratory is also capable for site calibration however, the uncertainty at site depends on the prevailing actual environmental conditions and master equipment used.

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