

**Laboratory** Testing Machine Services, Vasant Galaxy, Neptune B-704, Bangur Nagar, Goregaon (W), Mumbai, Maharashtra

**Accreditation Standard** ISO/IEC 17025: 2005

**Certificate Number** CC-2517 (In lieu of C-0189)

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**Validity** 01.03.2018 to 29.02.2020

**Last Amended on** -

Sl.	Quantity Measured / Instrument	Range/Frequency	*Calibration Measurement Capability ( $\pm$ )	Remarks
<b><u>MECHANICAL CALIBRATION</u></b>				
<b>I. UTM, TESNSION CREEP AND TORSION TESTING MACHINE</b>				
1.	Verification of Uniaxial Testing Machine * Compression Tension	20 N to 2000 kN 20 N to 400 kN	0.53% 0.26%	Using Dynamometer & Load Cells of class 1 & better as per IS 1828 (part1) & ISO 7500-1
2.	Verification of Uniaxial Testing Machine * Compression	2 kN to 1000 kN	0.50%	Using Dynamometer & Load Cells of class A & AA as per ASTM E4 – 16
3.	Verification of Test force of Rockwell & Rockwell superficial Hardness Tester *	29.42 N to 1471 N (3kgf to 150 kgf)	0.50%	Using Load Cell of class 0 & class 1 as per IS:1586 (part 2) ISO 6508-2 (E)
4.	Verification of Test force of Brinell Hardness Tester *	1838.7 N to 29420 N (187.5kgf to 3000 kgf)	0.50%	Using Load Cell of Class 0 & class 1 as per IS:1500 (part 2) ISO 6506-2 (E)
5.	Verification of Test force of Vickers Hardness Tester *	49.03 N to 490.3 N (5kgf to 30 kgf)	0.50%	Using Load Cell of class 0 & class 1 as per IS:1501 (part 2) ISO 6507-2

**Ashish Kakran**  
Convenor

**Avijit Das**  
Program Director

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<b>II.</b>	<b>HARDNESS TESTING MACHINE</b>			
1.	Verification of Rockwell & Rockwell Superficial hardness tester *	HRA HRBW HRC HRN HRTW	0.40 HRA 0.45 HRBW 0.45 HRC 0.53 HRN 0.70 HRTW	Using standard Hardness Test Blocks as per IS:1586 (part 2) ISO 6508-2 (E) & ASTM E18 – 16 by Indirect Method
2.	Verification of Brinell hardness tester *	HBW 2.5/187.5 HBW 5/750 HBW 10/3000	4.30% 2.30% 1.25%	Using standard Hardness Test Blocks as per IS:1500 (part 2), ISO 6506-2 (E) & ASTM E10 – 17 by Indirect Method
3.	Verification of Vickers hardness tester *	HV 0.5 HV 1 HV 5 HV 10 HV30	4.30% 3.0% 1.75% 1.25% 1.10%	Using standard Hardness Test Blocks as per IS:1501 (part 2), ISO 6507-2 & ASTM E92-17 & E384-16 by Indirect Method
4.	Verification of Extensometer *	0.01 mm to 2 mm	0.006 mm	Using Extensometer Calibrator with DRO, Electronic probe & Micrometer Head as per ISO 9513(E) & ASTM E83-16

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

\*Only for Site Calibration

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