

**THE BOMBAY TEXTILE RESEARCH ASSOCIATION, Mumbai**

**RECOMMENDED SCOPE OF ACCREDITATION**

*(For Calibration Laboratories)*

Laboratory: The Bombay Textile Research Association, Mumbai				Date(s) of visit: 13-14 / 10/ 2016			
<b>Discipline: Mechanical (Mass, Volume)</b>							
SI	Parameter/ Device under calibration	Master equipment used	Range(s) of measurement	Calibration and Measurement Capability			Remarks/Method used
				Claimed by laboratory	Observed by Assessor	Recommended by Assessor	
1	Mass Weights (At Permanent Lab)	Using E2 class standard weights 1mg - 200g and Balance of d:0.01mg /0.1mg Upto 200g	1mg	0.01mg	-----	0.02mg	Calibration of F2 class weights and coarser as per OIML R - 111 Substitution Method through ABBA cycles
			2mg	0.01mg	-----	0.02mg	
			5mg	0.01mg	0.018mg	0.02mg	
			10mg	0.01mg	-----	0.02mg	
			20mg	0.016mg	0.02mg	0.02mg	
			50mg	0.017mg	-----	0.02mg	
			100mg	0.017mg	0.018mg	0.02mg	
			200mg	0.021mg	0.0092mg	0.03mg	
			500mg	0.027mg	0.016mg	0.03mg	
			1g	0.03 mg	0.018mg	0.03mg	
			2g	0.04 mg	0.016mg	0.04mg	
			5g	0.04 mg	0.02mg	0.04mg	
			10g	0.06 mg	0.023mg	0.06mg	
			20g	0.08 mg	0.027mg	0.08mg	
			50g	0.09 mg	0.035mg	0.09mg	
			100g	0.17 mg	0.11mg	0.2mg	
		200g	0.25 mg	0.15mg	0.3mg		
			500g	0.92mg	8.94mg	10mg	Calibration of M1 class weights and coarser as per OIML R-111 by Substitution Method through ABBA cycles
			1kg	1.72mg	9.06mg	10mg	
			2kg	3.36mg	8.67mg	10mg	
	5kg	9.21mg	89.2mg	100mg			

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2	Mass Electronic Weighing balance At site & Lab (At lab is only for the internal use)	E2 class standard weights 1mg - 200g	1mg - 80g $d \geq 0.01\text{mg}$	0.03mg	0.03mg	0.03mg	Calibration of class 1 weighing balances and coarser as per OIML R – 76
			10mg - 200g $d \geq 0.1\text{mg}$	0.32mg	0.22mg	0.3mg	
		E2 class standard weights 1mg - 200g & 500g - 5kg - F1 class weights	500mg - 3kg $d \geq 0.01\text{g}$	20mg	5.8mg	20mg	Calibration of class 2 weighing balances and coarser as per OIML R – 76
			1g - 5kg $d \geq 0.1\text{g}$	150mg	56mg	200mg	

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				Claimed by laboratory	Observed by Assessor	Recommended by Assessor	
3	Volume Glassware (Pipette, Burette, Measuring Cylinder, Volumetric Flask, (At permanent Lab)	Using Weighing balance with d: 0.01mg / 0.1mg and distilled water, Standard weights	$0.5\text{ml} < V \leq 10\text{ml}$	0.012ml	0.0106ml	0.012ml	Calibration of Glassware based on Gravimetric method as per ISO 4787
			$10\text{ml} < V \leq 100\text{ml}$	0.02ml	0.0104ml	0.02ml	