

Schedule

Issue date: 8 December 2023
Valid until: 23 November 2028



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* The uncertainty covered by the CMC is expressed as the expanded uncertainty corresponding to a coverage probability of approximately 95 % and have a coverage factor of $k=2$ unless stated otherwise.

SCOPE OF CALIBRATION: FORCE

Instrument Calibrated/ Measurement Parameter	Range	Calibration and Measurement Capability Expressed as an Uncertainty(\pm)*	Remarks
Push-Pull Gauge Tension Gauge	0 kgf to 100 kgf 0 kgf to 100 kgf	0.5 % of reading 0.5 % of reading	Calibrated using Deadweight Standard Weight with reference to ISO 376:2011
Load Measuring Device Tension	0 kgf to 500 kgf 500 kgf to 1 tonf 1 tonf to 5 tonf 5 tonf to 10 tonf 10 tonf to 30 tonf	15 gf 0.58 kgf 1.7 kgf 7 kgf 28 kgf	Calibrated using Load Cell, Proving Ring and Tension/ Compression Testing Machine with reference to ISO 376:2011
Load Measuring Device (Continue) Compression	0 kgf to 500 kgf 500 kgf to 1 tonf 1 tonf to 5 tonf 5 tonf to 10 tonf 10 tonf to 30 tonf 30 tonf to 40 tonf	15 gf 0.56 kgf 1.7 kgf 7 kgf 28 kgf 28 kgf	Calibrated using Load Cell, Proving Ring and Tension/ Compression Testing Machine with reference to ISO 376:2011
Shore Hardness Tester (spring load) 1. Type A, B, E, O 2. Type C, D, DO 3. Type OO	0 to 100 shore hardness index 0 to 100 shore hardness index 0 to 100 shore hardness index	0.24 shore hardness index 0.23 shore hardness index 0.23 shore hardness index	Calibrated using Durometer tester with reference to ASTM D 2240:2015



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SCOPE OF CALIBRATION: FORCE

Instrument Calibrated/ Measurement Parameter	Range	Calibration and Measurement Capability Expressed as an Uncertainty(\pm)*	Remarks
Adhesion Tester (pressure)	0 N/mm ² to 25 N/mm ²	0.14 N/mm ²	Calibrated using Load Cell with reference to ASTM D 4541:2017

Signatory:

1. Seah Leong Ho

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SCOPE OF CALIBRATION: FORCE**SITE: CATEGORY I**

Instrument Calibrated/ Measurement Parameter	Range	Calibration and Measurement Capability Expressed as an Uncertainty(\pm)*	Remarks
Universal Testing Machine 1. Tensile mode (0~10,000 kgf) 2. Compress mode (0~200,000 kgf)	0 kgf to 100 kgf 100 kgf to 1,000 kgf 1,000 kgf to 5,000 kgf 5,000 kgf to 10,000 kgf 10,000 kgf to 50,000 kgf 50,000 kgf to 200,000 kgf	4 gf 0.26 kgf 1 kgf 15 kgf 60 kgf 260 kgf	Calibrated using Deadweight up to 500 kgf or Load Cell based on ISO 7500-1:2018
Hardness Tester	20 HRA to 88 HRA 30 HRB to 100 HRB 10 HRC to 70 HRC	± 0.6 HRA ± 0.6 HRB ± 0.6 HRC	Calibrated using Load Cell and Hardness Block set based on ISO 6508-2:2015 under method clause 5 indirect verification

Signatory:

1. Seah Leong Ho