

TO: Tinius Olsen Customers
FROM: Laurie Mart, Quality Manager
Shawn Byrd, Technical Manager
DATE: March 29, 2021
RE: Decision Rule Information per ISO 17025:2017sec. 7.1.3

Dear Tinius Olsen Customer,

As your calibration provider, we are contacting you to clarify our position regarding **Decision Rule** and our A2LA Scope of Accreditation. From ISO 17025 sec. 7.1.3, "When the customer requests a statement of conformity to a specification or standard for the calibration, the specification or standard and the decision rule shall be clearly defined. Unless inherent in the requested specification or standard, the decision rule selected shall be communicated to, and agreed with, the customer."

When sending out our Reminder Letters for equipment that is due to be calibrated, we typically include a 'Scope Summary sheet' based on our A2LA Scope of Accreditation. The summary sheet includes a column that calls out the applicable standard or specification to which your testing machine or instrument is calibrated.

- **Tinius Olsen's accredited calibrations determine pass/fail compliance status (Decision Rule) based on factors inherent within the applicable published standard and our own documented uncertainty budget(s).**
- Please note, some calibrations do not call out "pass" or "fail" but instead list **classification status (Decision Rule) which is based on factors inherent within the applicable published standard and our own documented uncertainty budget(s).**

*Customer should specify requested class requirements or Tinius Olsen will provide best achievable classification.

From ILAC G8:09 – Guidelines on Decision Rules (Sec. 4.2)

"A decision rule can be either be binary or non-binary. This means either "pass" or "fail" only for binary conditions and some "conditional" terms for non-binary." When determining decision rule, measurement uncertainty must also be accounted for. If you have questions regarding risk analysis, determining Decision Rule, or need additional information we refer you to **ILAC G8 09:2019**.

We have updated and revised the A2LA Scope Summary sheets to provide clarity regarding our accredited calibration services and to better define the standards on which each procedure and the Decision Rule is established. The revised form now includes the following information:

- Applicable Tinius Olsen procedure # used for the calibration/verification
- Description of the verification
- Applicable standard(s) on which Decision Rule is established
- Whether the resulting certificate will report pass/fail or a classification

The updated A2LA Scope summary is included here for your reference.



A2LA SCOPE SUMMARY			
Tinius Olsen Procedure	Calibration / Verification	Applicable Standard	Pass/Fail
1000	Force -Universal or other testing machines	ASTM E4	P/F
1100	Force	ISO 7500-1	*Class
1110	Torque	ASTM E2624	P/F
1150	Tension Creep	ISO 7500-2	P/F
1155	Dead Weight Str Ruptures/Creeps (up to 40 lbs)	ISO 7500-2 or ASTM E139 and AC7101	*Class
1300	Dynamic	NASM 1312	*Class
1500	Balance & Scales Class I, II, & III Scales –using Class 1 Weights - max capacity 1200 g Class III & Unmarked Scales – using Class F Weights - max capacity 13000 g	NIST Hbk 44	P/F
2000	Strain (extensometers, deflectometers, etc.)	ASTM E83	*Class
2100	Strain (extensometers, deflectometers, etc.)	ISO 9513, ISO 5893	*Class
2600	Displacement on a testing machine	ASTM E2309	*Class
2700	Rates - Load rate or Strain rate	Tinius Olsen Procedure 2700	*Class
2800	Crosshead Speed Rate	ASTM E2658	*Class
3000	Brinell (1-3000 kgf)	ASTM E10	P/F
3500	Knoop/Vickers - Indirect verification Vickers: 100, 200, 300, 500 gf, 1 kgf, 5 kgf, 10 kgf, 30 kgf & 120 kgf Knoop: 100, 200, 300, 500, 1000 gf	ASTM E92 and E384	P/F
4000	Rockwell - Indirect verification Scales: A, BW, C, D, EW, FW, HW, MW, RW, 15/30/45 N & 15/30/45 TW	ASTM E 18	P/F
5000	Metals Impact - direct/dimensional verification (includes replicate review at Tinius Olsen facility)	ASTM E23	P/F
6000	Specimen Alignment	ASTM E 1012, GE S-400 and AC7101	*Class
7000	Melt Indexer (extrusion plastometer)	ASTM D1238	P/F
7100	Melt Indexer (extrusion plastometer)	ISO 1133-1	P/F
8000	Plastic Impact (includes replicate review at Tinius Olsen facility)	ASTM D 256 and/or ISO 180, ISO 13802	P/F
8100	Plastic Impact Notcher	ASTM D256, ASTM D6110, ISO 179, and ISO 180	P/F
0730	Plastic Impact Notcher	ASTM D256, ASTM D6110, ISO 179, and ISO 180	P/F
9000	Heat Deflection/Vicat testing machine	ASTM D648	P/F

*Customer should specify requested class requirements or Tinius Olsen will provide best achievable classification.

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TINIUS OLSEN
Testing Machine Co., Inc.

As the customer, it is your responsibility to request a statement of conformity. We realize there is no single decision rule that can cover all situations applicable to statements of conformity. Please inform us if you would like to request an alternate specification or standard for your calibration. You may direct your request to the quality department where it will be reviewed for technical approval.

Sincerely,

A handwritten signature in cursive script that reads "Laurie Mart".

Laurie Mart
Quality & Safety Manager
215-675-7100 x504
Lmart@tiniusolsen.com

A handwritten signature in cursive script that reads "Shawn Byrd".

Shawn Byrd
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