



Test Monitoring Center

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OSCT Information Letter 09-1
Sequence No. 14
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ASTM consensus has not yet been obtained on this information letter. An appropriate ASTM ballot will be issued in order to achieve such consensus.

TO: OSCT Mailing List
SUBJECT: Revised Extensometer Calibration Procedure

During the August 12, 2009 OSCT Surveillance Panel meeting, the panel approved a motion to incorporate a second extensometer calibration procedure, for computer-controlled extensometers, into Test Method D 5662. This procedure would be in addition to the current manual calibration procedure currently shown in Annex A2. A revised Section 6.1.2 and a new Annex A3 are attached. This change is effective August 12, 2009.

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Chairman
OSCT Surveillance Panel

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Attachment

c: ftp://ftp.astmtmc.cmu.edu/docs/gear/osct/procedure_and_ils/il09-1.pdf

Distribution: Email

(Revises Test Method D5662-09 as amended by Information Letters 08-1 and 08-2)

6.1.2 *Tension Testing Machine*—See Test Method D 412. Set the testing machine rate of grip separation for the percent elongation change determinations at (8.5 ± 0.8) mm/s. Calibrate the tension testing machine in accordance with **Annex A2** or **Annex A3**, as appropriate.

A3. COMPUTERIZED EXTENSOMETER CALIBRATION PROCEDURE

A3.1

Use this procedure to manually calibrate an Instron-type extensometer equipped with Bluehill[®] 2 computer control software.^{A, B}

A3.1.1 Perform all calibration operations on the computer controlling the extensometer.

A3.1.2 Verify that the computer software is set to SI units.

A3.1.3 Set the software to *manual* for the calibration procedure.

A3.2 Extension Calibration

A3.2.1 Open the *Transducer Setup* window in the software and select the *Extension* tab.

A3.2.1 Use the jog key to drive the crosshead to a gauge length of approximately 60 mm.

A3.2.2 Enter the new gauge length in the window and reset the extension display to zero by pressing the *Reset Gauge Length* button. Press *Done* to close the window.

A3.3 Extensometer Grip Calibration

A3.3.1 Set the extensometer grip length using the calibrated Instron ruler.

A3.3.2 Swing the extensometer arms to the side of the pneumatic grips.

A3.3.3 Place the upper extensometer grip knife blade in the 0 mm groove and the lower extensometer grip knife blade in the 25 mm groove. Use the thumb screws to adjust the barrels behind the knife blade arms so that there is no gap between the barrels.

A3.4 Load Calibration

A3.4.1 Open the *Transducer Setup* window in the software and select the *Load* tab.

A3.4.2 Press *Calibrate*. Press *OK* to close the pop-up window that appears when the operation is completed.

A3.5 Strain Calibration

A3.5.1 Open the *Transducer Setup* window in the software and select the *Strain 1* tab.

A3.5.2 Verify the knife blades are still in the grooves and apart at 25 mm.

A3.5.3 Press *Calibrate*. Verify the ruler settings, 0.00 mm and 25.00 mm, are correct in the pop-up window and press *OK* to start calibration. When completed, a second pop-up window appears.

A3.5.4 Move the upper extensometer grip knife blade to the 250 mm groove on the ruler, keeping the lower knife blade in the 25 mm groove. Do not make any adjustments to the barrels in back.

A3.5.5 Verify the ruler settings, 0.00 mm and 250.00 mm, are correct in the pop-up window and press *OK* to start calibration. When completed, a third pop-up window appears.

A3.5.6 Move the upper extensometer grip knife blade back to the first position on the ruler, the 0 mm groove on the ruler, keeping the lower knife blade in the 25 mm groove. Do not make any adjustments to the barrels in back.

A3.5.7 Verify the ruler settings, 0.00 mm and 25.00 mm, are correct in the pop-up window and press *OK* to complete calibration.

A3.5.8 Remove the ruler from the extensometer grips and return the grips to the start position.

A3.5.9 Close the *Transducer Setup* window in the software. Calibration is complete.

^A The sole source of supply of the apparatus known to the committee at this time is Instron Worldwide Headquarters, 825 University Ave., Norwood, MA 02062-2643. 1 (800) 877-6674.

^B If you are aware of alternative suppliers, please provide this information to ASTM International Headquarters. Your comments will receive careful consideration at a meeting of the responsible technical committee, which you may attend.

{Footnotes A and B will be numbered correctly upon incorporation into the Test Method}