



Test Monitoring Center

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OSCT Information Letter 17-1
Sequence Number 20
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ASTM consensus has not been obtained on this information letter. An appropriate ASTM ballot will be issued in order to achieve such consensus.

TO: OSCT Surveillance Panel

SUBJECT:

1. Cutting of pre-test elongation specimens
2. Standardization of separation washer size
3. Standardization of hanger hole size
4. Standardization of specimen marking method
5. Standardization of location for specimen hardness measurement
6. Clarification on post-test cooling period prior to result measurement
7. Computation of test result averages and standard deviations

During a November 2, 2016 meeting and a follow-up teleconference on November 16 and a February 8, 2017 meeting, the OSCT Surveillance Panel enacted a number of measures intended to reduce lab-to-lab variation in test conduct. These measures are summarized in the subject list above. The appropriate sections of D5662 have been revised as shown in the attachment. These revisions are effective immediately.

Don Bell
Chairman
OSCT Surveillance Panel

Frank Farber
Director
ASTM Test Monitoring Center

Attachment

cc: ftp://ftp.astmtmc.cmu.edu/docs/gear/osct/procedure_and_ils/il17-1.pdf

Distribution: Email

Replace Section 8.2.4. with the following:

8.2.4 Finally, cut twelve more NI, PA, and FL dumbbells for the purpose of determining initial elongation properties. Since initial elongation is not measured until after the test completes (see Section 8.2.7), cutting of the initial elongation specimens after the test completes is also permissible.

Insert the text below after Section 8.2.4. and renumber subsequent sections accordingly:

8.2.x In order to suspend the elastomer specimens as described in 8.2.6 and 8.4, punch a hole in each not exceeding 3.25 mm (0.128 in.) in diameter.

Insert the text below after Section 8.2.5. and renumber subsequent sections accordingly:

8.2.x The elastomer specimens are used in groups of three. To differentiate each individual specimen within its group, cut one corner from one of them and two corners from another of them using a razor blade or razor knife. The hypotenuse of the removed corner shall measure 5 mm +/- 2 mm (0.197 in. +/- 0.079 in.). Do not write on the specimens using a paint stick, marker, or anything else as this may alter the elastomer surface area exposed to the test fluid.

Replace Section 8.2.7. with the following:

8.2.7 Measure initial elastomer properties of hardness and volume prior to the start of testing. Initial elongation properties are determined just prior to running the end of test dumbbells because of instrument calibration. Take care to measure hardness at least 10 mm (0.394 in.) from any specimen edge.

Replace Section 8. 4. with the following:

8.4 Use four test tubes for each elastomer/oil combination. In each tube, suspend from a stainless steel wire hanger bent at a 90° angle (dimensions shown in Fig. 1) three rectangular specimens and three dumbbells in each of the four tubes. Use 316 stainless steel M6 washers meeting DIN 125 specification as spacers in between the specimens to aid in the separation (an example of a washer meeting this requirement is McMaster-Carr item number 90965A170)⁸. The intent is that the spacer material not chemically interact with the test fluid or elastomer.

Add the following footnote 8:

⁸ McMaster-Carr Supply Company, 200 Aurora Industrial Pkwy, Cleveland, OH 44202.

Replace Section 8. 5. with the following:

8.5 At the end of the test period, remove the specimens from the hot oil using the wire hanger and place them on a clean absorbent towel. Allow the specimens to cool for no longer than 30 min. before beginning measurements.

Add a new Section 8.7.4 with the following text:

8.7.4 Compute the average and sample standard deviation for the twelve elongation change, hardness change, and volume change pairs and record as the test results in the space provided in the test report.