



Designation: E 83 – 00^{ε1}₂

An American National Standard

Standard Practice for Verification and Classification of Extensometer System¹

This standard is issued under the fixed designation E 83; the number immediately following the designation indicates the year of original adoption or, in the case of revision, the year of last revision. A number in parentheses indicates the year of last reapproval. A superscript epsilon (ε) indicates an editorial change since the last revision or reapproval.

This standard has been approved for use by agencies of the Department of Defense.

^{ε1} NOTE—The Word “System” was added editorially to the title in November 2001.

1. Scope

1.1 This practice covers procedures for the verification and classification of extensometer systems, but it is not intended to be a complete purchase specification. The practice is applicable only to instruments that indicate or record values that are proportional to changes in length corresponding to either tensile or compressive strain. Extensometer systems are classified on the basis of the magnitude of their errors.

1.2 Because strain is a dimensionless quantity, this document can be used for extensometers based on either SI or US customary units of displacement.

NOTE 1—Bonded resistance strain gages directly bonded to a specimen cannot be calibrated or verified with the apparatus described in this practice for the verification of extensometers having definite gage points. (See procedures as described in Test Methods E 251.)

1.3 *This standard does not purport to address all of the safety concerns, if any, associated with its use. It is the responsibility of the user of this standard to establish appropriate safety and health practices and determine the applicability of regulatory limitations prior to use.*

2. Referenced Documents

2.1 ASTM Standards:

¹ This practice is under the jurisdiction of ASTM Committee E28 on Mechanical Testing and is the direct responsibility of Subcommittee E28.01 on Calibration of Mechanical Testing Machines and Apparatus.

Current edition approved Dec. 10, 2000². Published February 2001. August 2002. Originally published as E 83 – 50. Last previous edition E 83 – 98^{00ε1}.