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EIA STANDARD

*Recommended Test Method -
Tensile Properties of
Magnetic Tape*

RS-362



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Engineering Department

ELECTRONIC INDUSTRIES ASSOCIATION

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RECOMMENDED TEST METHOD - TENSILE PROPERTIES OF MAGNETIC TAPE

(From Standards Proposals No 967, 967-A and 967-B, formulated under the cognizance of EIA Working Group P-8.6 on Magnetic Tape)

1. SCOPE

These methods cover the determination of tensile yield force, tensile force at break, and tensile break elongation of magnetic tapes. This standard was prepared because no other comparable industry-accepted document relating specifically to the subject matter contained herein is in existence.

2. SIGNIFICANCE

The tensile yield force and tensile force at break of a magnetic tape are an indication of the ability of the tape to resist distortion or breakage as a result of mechanical stresses encountered in use. The tensile break elongation is a measure of the permanent extension of the tape under excess tensile load.

3. DEFINITIONS

- 3.1 **Tensile yield force** — The instantaneous tensile load which results in significant permanent elongation of a tape.
- 3.2 **Tensile force at break** — The tensile load at the moment of a rupture of a tape.
- 3.3 **Tensile break elongation** — The elongation at the moment of rupture of a tape.

4. APPARATUS

The apparatus shall consist of a suitable film testing machine, grips, a specimen cutter, a width measuring device, and a thickness gauge.

4.1 Film Testing Machine

A testing machine of the constant-rate-of-jaw-separation type, equipped with a device for recording the tensile load carried by the specimen and the grip separation during the test. Both of these measuring systems shall be capable of being calibrated to an accuracy of $\pm 2\%$ by the methods described in ASTM E4. The rate of separation of the jaws shall be uniform to within $\pm 2\%$ of the strain rate specified.