

motion-picture standards

Published here is a new American Standard, PH22.114-1959, 16mm Azimuth Test Film, Magnetic Type, which was approved by the American Standards Association on April 17, 1959.

Since its trial publication in the April 1958 Journal, the standard has been changed as follows: rewording of paragraph 2.1, inclusion of paragraph 2.5, change in diagram and addition of table of dimensions.

A test film produced in accordance with these specifications is available from Society Headquarters.—*J. Howard Schumacher*, Staff Engineer.

SMPTE Test Films

Test films planned by the Society's technical committees and produced under the Society's exact supervision are available from the headquarters office at 55 West 42 St., New York 36. Catalogs containing brief descriptions of each film are obtainable on request.

These films are used by manufacturers for testing the performance of new equipment, by television station technicians for lining up and adjusting film pickup systems, by maintenance men for "in service" maintenance of projectors and sound equipment, and by dealers for testing and demonstration equipment.

Films are available in the following categories.

Television — Picture Only, Color or Black-and-White

CinemaScope

Visual 35mm — Picture Only

Magnetic — 16mm Sound Only


Picture and Sound — 16mm

Picture Only — 16mm

Glass Slide — 16mm

American Standard

16mm Azimuth Test Film, Magnetic Type



Reg. U.S. Pat. Off.
PH22.114-1959
*UDC 778.5 771.531.551.2

1. Scope

1.1 This standard specifies a test film with full-width magnetic coating having a magnetic sound record to be used for aligning the azimuth of magnetic heads on 16mm magnetic recording and reproducing equipment.

2. Test Film

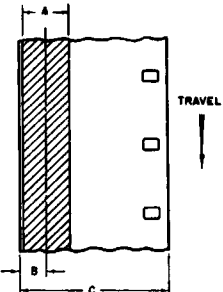
2.1 The test film shall have an original sound record having a wave shape that is approximately sinusoidal. The frequency of the sound record shall be approximately 7000 cps when the film travel rate is 24 perforations per second (approximately 36 ft per minute).

2.2 The sound record shall have correct azimuth within ± 3 minutes of arc.

2.3 The recording shall be made at 100 percent modulation level with a tolerance of $+ 0 - 2$ db 100 percent modulation is defined as the recording head current at which 3 percent total harmonic distortion occurs at a signal frequency of 1000 cps.

2.4 The locations and dimensions of the sound record as shown in the diagram and table shall be in accordance with American Standard 200-Mil Magnetic Sound Record on 16mm Film Base Perforated One Edge, PH22.97-1956, or the latest revision thereof approved by the American Standards Association, Incorporated.

2.5 With the direction of travel as shown in the diagram, the magnetic coating is on the upper side of the film base.



| Dimension | Inches | Millimeters |
|-----------|-------------------|-----------------|
| A | 0.200 ± 0.002 | 5.08 ± 0.05 |
| B | 0.103 ± 0.002 | 2.62 ± 0.05 |
| C | 0.630 nom | 16 nom |

3. Film Stock

3.1 The film stock used shall be of the low-shrinkage safety type, cut and perforated in accordance with American Standard Dimensions for 16mm Film, Perforated One Edge, PH22.12-1953, or the latest revision thereof approved by the American Standards Association, Incorporated.

4. Length of Film

4.1 The film shall be supplied in 100-ft lengths.

5. Identification

5.1 The film shall have identification markings at both ends.

APPENDIX

(This Appendix is not a part of American Standard 16mm Azimuth Test Film, Magnetic Type, PH22.114-1959, but is included to facilitate its use.)

Fluctuations in signal level may seriously impair the ease and precision of setting an azimuth adjustment. It is recommended that the signal level when reproduced on high quality equipment and measured with

NOTE: A test film in accordance with this standard is available from the Society of Motion Picture and Television Engineers.

a VU meter be held to a tolerance of ± 0.5 db through any 100-ft length of film. Exception may be made for occasional rapid level fluctuations such as may be caused by "drop-outs."

Approved April 17, 1959, by the American Standards Association, Incorporated
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*Universal Decimal Classification

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