

Proposed American Standards

The four proposals published here are revisions of established American Standards. These proposals have been approved by both the Sound and Standards Committees and are presented now for a three-month period of trial and comment. Comments should be addressed to Alex E. Alden at Society Headquarters prior to June 15, 1962. If no adverse criticism is received by that date, these proposals will be submitted to ASA Sectional Committee PH22 for further processing.

PH22.88, Magnetic Coating of 8mm Motion-Picture Film, Perforated 1R-1500, and PH22.101, Magnetic Coating of 16mm Motion-Picture Film, Perforated 2R-3000, are both substantially the same as the 1956 issue except for editorial rewording

to make these standards conform in style and data with other recently updated standards.

Two of the proposals describe sound test films supplied by SMPTE. Both of these standards have been revised in several details to insure a higher quality of product. PH22.57, 16mm Buzz-Track Test Film, Photographic Type, now calls for a lower density. The Sound Committee felt the density requirement was unduly restrictive. PH22.61, 7-kc Sound Focusing Test Film for 35mm Motion-Picture Sound Reproducers, was given an azimuth setting. Both of these standards also were reworked editorially to conform in style and data with other updated standards.—A.E.A.

SMPTE Recommended Practice RP 11*

This Recommended Practice originated in the Video Tape Recording Committee. The proposal, approved by the initiating committee and the Standards Committee, was published for trial and comment in the October 1961 Journal. The recommendation received final approval by the Society's Board of Governors on February 16, 1962.

Tape Vacuum Guide Radius and Position for Recording Standard Video Records on 2-in. Magnetic Tape

1. Scope

This recommended practice specifies the tape vacuum guide radius and position for recording standard video records on 2-in. magnetic tape.

2. Mechanical Dimensions

- 2.1 The radius of the tape vacuum guide shall be 1.0334, ± 0.0000 , -0.0005 in. (26.248, ± 0.000 , -0.013 mm).
- 2.2 The position of the vacuum guide shall be set so that the eccentricity of its center of curvature with respect to the axis of rotation of the video heads is as indicated in the table. The eccentricity shall be such that the extension of a line joining the center of curvature of the vacuum guide and the axis of rotation of the heads intersects the tape at the midpoint of its width. The center of curvature of

the vacuum guide shall lie between the axis of rotation of the heads and the vacuum guide.

| Vacuum Guide Radius | | Eccentricity | |
|---------------------|-------------|--------------|-------------|
| Inches | Millimeters | Inches | Millimeters |
| 1.0334 | 26.248 | 0.0000 | 0.000 |
| 1.0333 | 26.246 | 0.0001 | 0.003 |
| 1.0332 | 26.243 | 0.0002 | 0.005 |
| 1.0331 | 26.241 | 0.0003 | 0.008 |
| 1.0330 | 26.238 | 0.0004 | 0.010 |
| 1.0329 | 26.236 | 0.0005 | 0.013 |

Note: These dimensions are based on a nominal tape thickness of 0.0014 inch (0.0356mm) and a radius of rotation of the magnetic head pole tips of 1.0329 inch min. to 1.0356 inch max.

APPENDIX

The achievement of tape playback interchangeability requires, among other things, that means be provided to accommodate variations of (a) the radius of rotation of the magnetic head pole tips, (b) the radius of the vacuum guide and (c) tape thickness.

* A copy of this Recommended Practice may be obtained without charge upon request to Society Headquarters.

These effects are compensated by the stretching of the tape into a slot cavity in the vacuum guide by virtue of the radius of rotation of the magnetic head pole tips projecting beyond the unstretched oxide surface of the tape as held in the vacuum guide. Over the limits normally encountered, the stretching provides automatic compensation if the vacuum guide is positioned to give the minimum geometric distortion in the reproduced picture.

16mm Buzz-Track Test Film, Photographic Type

1. Scope

This standard specifies a buzz-track test film used for checking the lateral position of the sound scanning beam in 16mm motion-picture sound reproducers.

2. Test Film

2.1 The test film shall have originally recorded 300-cycle and 1000-cycle signal tracks on opposite sides of the central exposed strip as shown in the drawing.

2.2 The position of the tracks, weave in running film on the recorder included, shall be in accordance with the dimensions given in the table.

2.3 The central exposed strip and the exposed portions of the two signal tracks shall have a density of $1.0 \pm 0.4 - 0.0$.

3. Film Stock

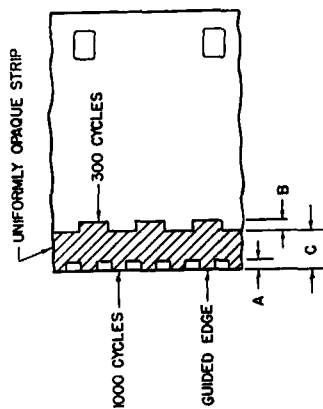
The film stock used shall be of the low-shrinkage, safety type, cut and perforated in accordance with American Standard Dimensions for 16mm Film, Perforated One Edge, PH22.12-1953.

4. Identification

Each film shall be marked "ASA—PH22.57—Buzz-Track." This marking shall be printed lengthwise in the picture area, the spacing between consecutive titles to be approximately 12 in.

5. Film Length

The film shall be supplied in 100-ft lengths.



| Dimensions | Inches | Millimeters |
|------------|--------------------------|------------------------------|
| A | $+ 0.0005$ $- 0.0200$ | $+ 0.013$ $0.508 - 0.000$ |
| B | ± 0.001 | 0.46 ± 0.03 |
| C | $+ 0.0000$ $- 0.0960$ | $2.438 + 0.000$ $- 0.012$ |

6. Revision of American Standard Referred to in This Document

When the following American Standard referred to in this document is superseded by a revision approved by the American Standards Association, Incorporated, the revision shall apply:

American Standard Dimensions for 16mm Film, Perforated One Edge, PH22.12-1953

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

NOT APPROVED

7 kc Sound Focusing Test Film for 35mm Motion-Picture Sound Reproducers

1. Scope

This standard describes a film that may be used for focusing the optical systems in 35mm motion-picture sound reproducers. The recorded frequency shall be suitable for use in the routine maintenance and servicing of the equipment.

2. Test Film

2.1 The film shall be a print from an original negative and shall contain a 7000-cycle, sinusoidal, variable-area or variable-density track recorded at 1 db below 100-percent modulation. The variation in power output level from the film shall be not more than ± 0.25 db.

2.2 The sound record shall comply with American Standard Photographic Sound Record on 35mm Prints, PH22.40-1957, and the film stock used shall be cut and perforated in accordance with American Standard Dimen-

sions for 35mm Motion-Picture Positive Raw Stock, PH22.36-1954.

2.3 The azimuth of the sound record shall be perpendicular to the direction of film travel within ± 3 min of arc.

3. Revision of American Standards

When the following American Standards referred to in this document are superseded by revisions approved by the American Standards Association, Incorporated, the revisions shall apply:

American Standard Dimensions for 35mm Motion-Picture Positive Raw Stock, PH22.36-1954

American Standard Photographic Sound Record on 35mm Prints, PH22.40-1957

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

Proposed American Standard

Magnetic Coating of 8mm Motion-Picture Film, Perforated 1R-1500

PH22.88

1. Scope

This standard specifies the location and dimensions of the magnetic coating material applied to 8mm motion-picture film to be used for both picture and sound.

2. Magnetic Coating

2.1 The location and dimensions of the magnetic coating shall be as given in the diagram and table.

2.2 The magnetic coating is on the side of the film toward the lamp of a projector arranged for direct projection on a reflection type screen.

3. Film

The film used shall be cut and perforated in accordance with American Standard Dimensions for 8mm Motion-Picture Film, PH22.17-1954.

4. Revision of American Standard Referred to in This Document

When the following American Standard referred to in this document is superseded by a revision approved by the American Stand-

ards Association, Incorporated, the revision shall apply:

American Standard Dimensions for 8mm Motion-Picture Film, PH22.17-1954

APPENDIX

(This Appendix is not a part of Proposed American Standard Magnetic Coating of 8mm Motion-Picture Film, Perforated 1R-1500, PH22.88, but is included to facilitate its use.)

The outer edge of the magnetic coating ideally should be coincident with the edge of the film, and for this reason the dimension B is given as zero. The tolerance listed is based upon practical considerations of present stripping techniques and film handling mechanisms. Every effort should be made to reduce this tolerance as far as possible, consistent with the best uniformity of stripe thickness and flatness of stripe profile.

NOT APPROVED

Proposed American Standard

Magnetic Coating of 16mm Motion-Picture Film, Perforated 2R-3000

PH22.101

1. Scope

This standard specifies the location and dimensions of the magnetic coating material applied to 16mm motion-picture film with perforations along both edges to be used for both picture and sound.

2. Magnetic Coating

2.1 The location and dimensions of the magnetic coating shall be as given in the diagram and table.

2.2 The magnetic coating is on the side of the film toward the lamp of a projector arranged for direct projection on a reflection type screen.

2.3 The No. 1 magnetic stripe is intended for the sound record.

3. Film Base

The film base 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.

4. Revision of American Standard Referred to in This Document

When the following American Standard referred to in this document is superseded by a

revision approved by the American Standards Association, Incorporated, the revision shall apply:

American Standard Dimensions for 16mm Film, Perforated One Edge PH22.12-1953

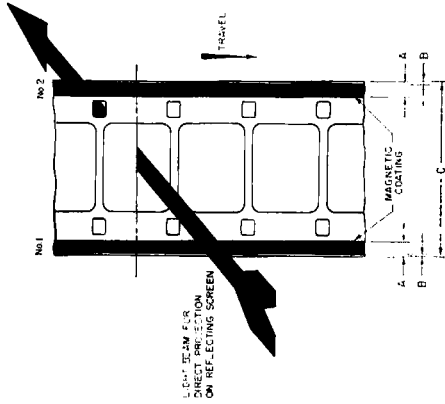
NOTE: The No. 2 stripe is an optional balance stripe and may be a magnetic coating or another material of the same thickness.

APPENDIX

(This Appendix is not a part of Proposed American Standard Magnetic Coating of 16mm Motion-Picture Film, Perforated 2R-3000, PH22.101 but is included to facilitate its use.)

The outer edge of the magnetic coating ideally should be coincident with the edge of the film, and for this reason the dimension B is given as zero. The tolerance listed is based upon practical considerations of present stripping techniques and film handling mechanisms. Every effort should be made to reduce this tolerance as far as possible, consistent with the best uniformity of stripe thickness and flatness of stripe profile.

NOT APPROVED



| Dimensions | Inches | Millimeters |
|------------|--------------------------|-----------------------|
| A | 0.031 max 0.028 min | 0.79 max 0.71 min |
| B | 0.000 + 0.005 - 0.000 | 0.00 + 0.13 - 0.00 |
| C | 0.628 | 15.95 |
| | nom | nom |