

American National Standard motion-picture film (8-mm type R)—perforated 1R-1500 film—magnetic striping

Approved November 2, 1982
Secretariat: Society of Motion Picture and Television Engineers

1. Scope

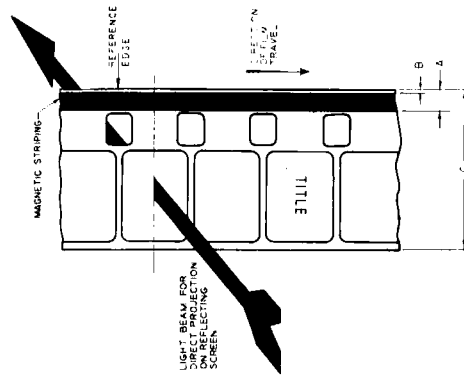
This standard specifies the location and dimensions of the magnetic striping material applied to 8-mm Type R motion-picture film to be used for both picture and sound.

2. Magnetic Striping

- 2.1 The location and dimensions of the magnetic striping shall be as given in the figure and table.
- 2.2 The magnetic striping is on the side of the film toward the lamp of a projector arranged for direct front projection on a reflection-type screen.

3. Film Stock

The film stock used shall be cut and perforated in accordance with American National Standard Dimensions for 16-mm Motion-Picture Film Perforated 8-mm Type R, 2R, ANSI PH22.17-1982.



Dimensions	Inches	Millimeters
A	max	0.79
	min	0.71
B	max	0.13
	ref	7.98
C		

Appendix

The Appendix is not a part of this American National Standard, but is included for information purposes only.

The outer edge of the magnetic striping ideally should be coincident with the edge of the film. Therefore, every effort should be made to reduce Dimension B as much as possible, consistent with the best uniformity of stripe thickness and flatness of stripe profile.

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American National Standard motion-picture film (16-mm)—perforated 2R-3000 film—magnetic striping

Approved November 2, 1982
Secretariat: Society of Motion Picture and Television Engineers

1. Scope

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

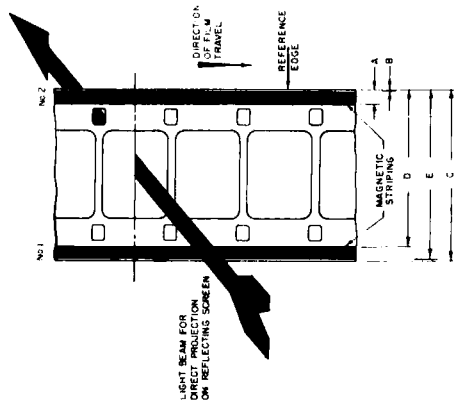
2. Magnetic Striping

- 2.1 The location and dimensions of the magnetic striping shall be as given in the figure and table.
- 2.2 The magnetic striping is on the side of the film toward the lamp of a projector arranged for direct front projection on a reflection-type screen.
- 2.3 The No. 1 magnetic stripe is intended for the sound record.

3. Film Stock

The film stock used shall be of the low-shrinkage safety type, cut and perforated in accordance with American National Standard Dimensions for 16-mm Motion-Picture Film Perforated 2R, ANSI PH22.110-1980.

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



Dimensions	Inches	Millimeters
A	max	0.79
	min	0.71
B	max	0.13
	ref	15.95
C	max	15.24
	min	15.16
D		
E		

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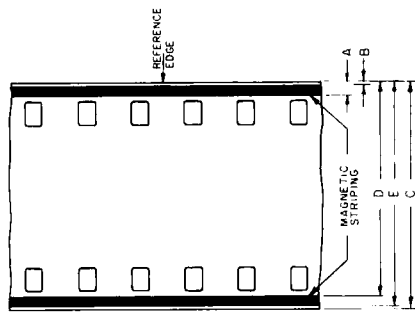
1. Scope

This standard specifies the location and dimensions of the magnetic striping material applied to 16-mm motion-picture film with two rows of 8-mm Type R perforations.

2. Magnetic Striping

2.1 The location and dimensions of the magnetic striping shall be as given in the figure and table.

2.2 The magnetic striping shall be on the side of the film toward the lamp on a projector arranged for direct front projection on a reflection-type screen.



Dimensions	Inches	Millimeters
A	0.031 max	0.79 max
	0.028 min	0.71 min
B	0.005 max	0.13 max
C	0.628 ref	15.95 ref
D	0.600 max	15.24 max
	0.597 min	15.16 min
E	0.623 min	15.82 min

3. Film Stock

The film stock used shall be of the low-shrinkage safety type, cut and perforated in accordance with American National Standard Dimensions for 16-mm Motion-Picture Film Perforated 8-mm Type R, 2R, ANSI PH22.17-1982.

Appendix

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The outer edge of the magnetic striping ideally should be coincident with the edge of the film. Therefore, every effort should be made to reduce Dimension B as much as possible, consistent with the best uniformity of stripe thickness and flatness of stripe profile.

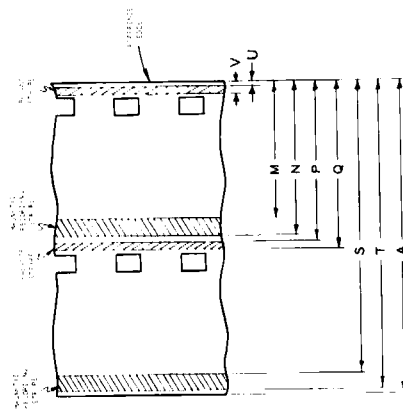
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American National Standard motion-picture film (16-mm)—perforated 8-mm type S, 2R-1667 (1-3) film—magnetic striping

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Page 1 of 2 pages



1. Scope

This standard specifies the location and dimensions of recording stripes and balance stripes applied to 16-mm motion-picture film with two rows of 8-mm Type S perforations in positions 1 and 3.

2. Dimensions

2.1 The location and dimensions of the magnetic recording stripes and balance stripes shall be as given in the figure and table.

2.2 The magnetic striping material shall be applied to the surface of the film away from a camera or projector lens; for example, toward the light source of a projector arranged for direct front projection on a reflection-type screen.

2.3 The stripes designated as "recording" are made of a magnetic material and are intended for the sound record. The stripes adjacent to the perforations are the balance stripes. The balance stripes may be stripes of magnetic or nonmagnetic material of such thickness that the balance and recording stripes project above the surface of the film to substantially the same degree.

Dimensions	Inches	Millimeters
A	0.628 ref	15.95 ref
M*	0.285 ± 0.002	7.24 ± 0.05
N*	0.312 ± 0.002	7.92 ± 0.05
P	0.317 ± 0.003	8.05 ± 0.08
Q	0.329 ± 0.003	8.36 ± 0.08
S*	0.599 ± 0.002	15.21 ± 0.05
T*	0.626 ± 0.002	15.90 ± 0.05
U	0.003 ± 0.003	0.08 ± 0.08
V	0.015 ± 0.003	0.38 ± 0.08

*See Note 3.

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3. Film Stock

The film stock used shall be of the low-shrinkage, safety type, cut and perforated in accordance with American National Standard Dimensions for 16-mm Motion-Picture Film Perforated 8-mm Type S, (1-3), ANSI PH22.151-1981.

NOTE 1: The width and edge-to-perforation distance of the 8-mm slit strip shall be in accordance with ANSI PH22.151-1981. The location of the magnetic record and balance strips shall be in accordance with American National Standard Dimensions of Magnetic Striping of 8-mm Type S Motion-Picture Film, ANSI PH22.161-1980. Consequently, it is not possible to take full advantage

of the tolerances of both the slit width and the location of the magnetic record and balance strips.

NOTE 2: Tolerances for the center recording stripe and center balance stripe are specified to permit usage of a single wide stripe or two separate stripes. If two stripes are used, the amount of separation between the stripes should be sufficient to permit fitting within the requisites of the standard without obtaining undesirable feather edges of magnetic material. The separation required is determined by laboratory practice.

NOTE 3: Notwithstanding the tolerance on Dimensions M, N, S, and T, the width of the stripes, Dimensions N minus M and T minus S, shall be 0.025 in (0.635 mm) minimum.

SMPTE RECOMMENDED PRACTICE

RP 7-1982

Density and Contrast Range of Black-and-White Films and Slides for Television



1. Scope

This practice specifies important density values of black-and-white 16-mm and 35-mm motion-picture films and slides intended for television transmission.

2. Density Requirements

2.1 The minimum diffuse density of highlight areas shall have a normal value of 0.4 to 0.5 but not less than 0.3 for optimum reproduction in the television system. This value is not intended to apply to glint, specular highlights, or other small areas where details need not be reproduced.

2.2 The maximum diffuse density of lowlight areas shall have a normal value of 1.9 to 2.0 but not greater than 2.0 for optimum reproduction in the television system. This value is not intended to apply to areas where details need not be reproduced.

2.3 The density of human faces, usually observed more intently than other picture areas, shall be greater than the measured minimum density as specified in 2.1 above by a value not less than 0.15 or more than 0.5, unless special effects are desired. These density values are important in order to preserve the proper density relationships between face tones and highlights.

2.4 Density values on film intended for television, having a dyed or other base of significant minimum density, must be increased in all cases by the amount that such base density exceeds clear base density.

3. Measurement

3.1 The method of density measurement shall be in accordance with American National Standard Conditions for Diffuse and Doubly-Diffuse Transmission Measurements (Transmission Density), ANSI PH2.19-1976.