ANSI V98.25M-1982

American National Standard
dimensions of 1-in video magnetic recording tape

Approved June 28, 1982 Secretariat: Society of Motion Picture and Television Engineers

1. Scope

This standard specifies the dimensions of 1-in video magnetic recording tape, and the direction of magnetic orientation.

2. Dimensions

The dimensions of the magnetic tape shall be as specified below when the tape is normalized at 23 ± 1°C and 50 ± 2 percent relative humidity:

Dimensions	Millimeters
Width	25.349 ± 0.025
Maximum overall thickness	0.030

3. Direction of Orientation

The direction of orientation of the magnetic coating shall be longitudinal.

American National Standards Institute, 1430 Broadway, New York, N.Y. 10018

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American National Standard
specifications and conditioning of raw tape stock used to record reference tapes for 1-in helical-scan video tape recorders

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1. Scope

This standard specifies dimensions for the width, thickness, and width deviation of raw tape stock used to record reference tapes for 1-in helical-scan video tape recorders. Conditions before testing and testing environment are also specified.

2. Conditioning for Testing and Recording

2.1 Tests, measurements, and recordings made on the raw tape stock to check the requirements of this standard shall be made under the following conditions:

Temperature	23°C ± 1°C
Relative humidity	50 ± 2 percent
Barometric pressure	86 to 106 kPa

2.2 The raw tape stock shall be stabilized at the above conditions for 24 hours, rewound on a reel at a tape tension of 2.0 ± 0.5 newtons, and kept at the same conditions for another 24 hours.

3. Dimensions

3.1 Tape Stock. The dimensions of the tape stock for recording reference tapes shall be as specified below:

Dimensions	Millimeters
Width	25.360 ± 0.010
Thickness	0.027 to 0.030
Maximum rate of width change	less than 0.015 over a length of 250

3.2 Longitudinal Dimensional Change. The longitudinal dimensional change of the raw tape stock kept under the following conditions for 48 hours shall be less than 0.03 percent:

Temperature	45°C ± 1°C
Relative humidity	85 ± 2 percent
Tape tension	2.0 ± 0.5 newtons

The longitudinal dimensional change shall then be measured after storage for 24 hours under the conditions specified in Sec. 2.1.

3.3 Modulus of Elasticity. The longitudinal modulus of elasticity shall be measured in accordance with American National Standard Test Methods for Tensile Properties of Thin Plastic Sheeting, ANSI/ASTM D 882-80a, and shall meet the following specifications:

	N/mm^2	lb/in^2
minimum	2.9×10^3	0.43×10^6
maximum	7.4×10^3	1.07×10^6

3.4 Poisson's Ratio. Poisson's Ratio shall be 0.4 nominal.

NOTE: In addition to the parameters specified in this standard, there are other parameters such as coating and frictional characteristics that affect the operation of the tape. Manufacturers of reference tapes should take these parameters into consideration.

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