



SLOVENSKI STANDARD

SIST EN 60094-4:1999

01-april-1999

Magnetic tape sound recording and reproducing systems -- Part 4: Mechanical magnetic tape properties ((IEC 60094-4:1986)

Magnetic tape sound recording and reproducing systems -- Part 4: Mechanical magnetic tape properties

Systeme für Tonaufzeichnung und -wiedergabe auf Magnetband -- Teil 4: Mechanische Eigenschaften von Magnetbändern

Systèmes d'enregistrement et de lecture du son sur bandes magnétiques -- Partie 4: Propriétés mécaniques des bandes magnétiques

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Ta slovenski standard je istoveten z: EN 60094-4:1994

ICS:

33.160.30 Avdio sistemi Audio systems

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EUROPEAN STANDARD

EN 60094-4

NORME EUROPEENNE

EUROPÄISCHE NORM

May 1994

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Supersedes HD 311.4 S1:1988

Descriptors: Magnetic tape recording, sound recording and reproduction,
mechanical property, method of measurement

ENGLISH VERSION

Magnetic tape sound recording and reproducing
systems

Part 4: Mechanical magnetic tape properties
(IEC 94-4:1986)

Systèmes d'enregistrement et
de lecture du son sur bandes
magnétiques
Quatrième partie: Propriétés
mécaniques des bandes
magnétiques
(CEI 94-4:1986)

Systeme für Tonaufzeichnung
und -wiedergabe auf Magnetband
Teil 4: Mechanische
Eigenschaften von
Magnetbändern
(IEC 94-4:1986)

This European Standard was approved by CENELEC on 1993-12-08.
CENELEC members are bound to comply with the CEN/CENELEC Internal Regulations
which stipulate the conditions for giving this European Standard the status of
a national standard without any alteration.

Up-to-date lists and bibliographical references concerning such national standards
may be obtained on application to the Central Secretariat or to any CENELEC member.

This European Standard exists in three official versions (English, French, German).
A version in any other language made by translation under the responsibility of
a CENELEC member into its own language and notified to the Central Secretariat
has the same status as the official versions.

CENELEC members are the national electrotechnical committees of Austria, Belgium,
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Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.

CENELEC

European Committee for Electrotechnical Standardization
Comité Européen de Normalisation Electrotechnique
Europäisches Komitee für Elektrotechnische Normung

Central Secretariat: rue de Stassart 35, B-1050 Brussels

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Ref. No. EN 60094-4:1994 E

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FOREWORD

As a consequence of the IEC-CENELEC Agreement, HD 311.4 S1:1988 (IEC 94-4:1986) was submitted to the CENELEC voting procedure for conversion into a European Standard.

The text of the International Standard was approved by CENELEC as EN 60094-4 on 8 December 1993.

The following dates were fixed:

- latest date of publication of
an identical national standard (dop) 1994-12-01
- latest date of withdrawal of
conflicting national standards (dow) -

Annexes designated "normative" are part of the body of the standard. In this standard, annex ZA is normative.

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ENDORSEMENT NOTICE

SIST EN 60094-4:1999

The text of the International Standard IEC 94-4:1986 was approved by CENELEC as a European Standard without any modification.

ANNEX ZA (normative)

OTHER INTERNATIONAL PUBLICATIONS QUOTED IN THIS STANDARD
WITH THE REFERENCES OF THE RELEVANT EUROPEAN PUBLICATIONS

This European Standard incorporates by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies.

NOTE : When the international publication has been modified by CENELEC common modifications, indicated by (mod), the relevant EN/HD applies.

IEC Publication	Date	Title	EN/HD	Date
94-1	1981	Magnetic tape sound recording and reproducing systems - Part 1: General conditions and requirements	EN 60094-1	1993

[SIST EN 60094-4:1999](http://standards.iteh.ai/catalog/standards/sist/98a393fd-3ebc-4a97-9b64-93c7763b1c52/sist-en-60094-4-1999)

Other publications quoted: <http://standards.iteh.ai/catalog/standards/sist/98a393fd-3ebc-4a97-9b64-93c7763b1c52/sist-en-60094-4-1999>

ISO Recommendation R527:1966 - Plastics - Determination of tensile properties

ISO 4057:1979 - Information processing - Data interchange on 6,30 mm (0,25 in) magnetic tape cartridge, 63 bpmm (1600 bpi) phase-encoded

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**NORME
INTERNATIONALE
INTERNATIONAL
STANDARD**

**CEI
IEC
94-4**

Première édition
First edition
1986-09

**Systèmes d'enregistrement et de lecture du son
sur bandes magnétiques –**

**Quatrième partie:
Propriétés mécaniques des bandes magnétiques**

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**(standards.iteh.ai)
Magnetic tape sound recording and reproducing
systems –**

[SIST EN 60094-4:1999](https://standards.iteh.ai/catalog/standards/sist/98a393fd-3ebc-4a97-9b64-c7763b1c52/sist-en-60094-4-1999)

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Part 4:

Mechanical magnetic tape properties

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Commission Electrotechnique Internationale
International Electrotechnical Commission
Международная Электротехническая Комиссия

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

MAGNETIC TAPE SOUND RECORDING AND REPRODUCING SYSTEMS**Part 4: Mechanical magnetic tape properties**

FOREWORD

- 1) The formal decisions or agreements of the IEC on technical matters, prepared by Technical Committees on which all the National Committees having a special interest therein are represented, express, as nearly as possible, an international consensus of opinion on the subjects dealt with.
- 2) They have the form of recommendations for international use and they are accepted by the National Committees in that sense.
- 3) In order to promote international unification, the IEC expresses the wish that all National Committees should adopt the text of the IEC recommendation for their national rules in so far as national conditions will permit. Any divergence between the IEC recommendation and the corresponding national rules should, as far as possible, be clearly indicated in the latter.
- 4) The IEC has not laid down any procedure concerning marking as an indication of approval and has no responsibility when an item of equipment is declared to comply with one of its recommendations.

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PREFACE

This standard has been prepared by Sub-Committee 60A: Sound Recording, of IEC Technical Committee No. 60: Recording.

This standard should be read in conjunction with IEC Publication 38 (1983): IEC Standard Voltages, IEC Publication 65 (1985): Safety Requirements for Mains Operated Electronic and Related Apparatus for Household and Similar General Use, IEC Publication 268-1 (1985): Sound System Equipment, Part 1: General, IEC Publication 268-3 (1969): Sound System Equipment, Part 3: Sound System Amplifiers, IEC Publication 386 (1972): Method of Measurement of Speed Fluctuations in Sound Recording and Reproducing Equipment, IEC Publication 651 (1979): Sound Level Meters, ISO Recommendation R527 (1966): Plastics - Determination of Tensile Properties, and ISO Standard 4057 (1979): Information Processing - Data Interchange on 6.30 mm (0.25 in) Magnetic Tape Cartridge, 63 b/mm (1600 bpi) Phase-encoded.

The text of this standard is based on the following documents:

Six Months' Rule	Report on Voting
60A(CO)78	60A(CO)90

Further information can be found in the Report on Voting indicated in the table above.

IEC Publication 94 and its supplements are under revision. The new IEC Publication 94 will be issued in several parts, of which this is Part 4.

It will have the following parts:

Part 1: General conditions and requirements

General: electrical requirements for the magnetic tape recording and reproducing systems; mechanical requirements for the magnetic tape; tape identification; programme identification (Fourth edition, 1981).

Part 2: Calibration tapes

Minimum requirements for calibration tapes for making adjustments and comparative assessments of the reproducing performance (First edition, 1975).

Part 3: Methods of measuring the characteristics of recording and reproducing equipment for sound on magnetic tape (First edition, 1979).

Part 4: Mechanical magnetic tape properties

Characteristics to be specified and relevant methods of measurement. Equipment to be used to determine the mechanical properties of magnetic tapes (object of this standard).

Part 5: Electrical magnetic tape properties

Characteristics to be specified, methods of measurement and equipment to be used for the determination of the electrical properties of magnetic tape for analogue sound recording and reproduction (in preparation).

Part 6: Reel-to-reel systems

Mechanical requirements and dimensions, including reels, hubs and relevant track allocations (First edition, 1985).

Part 7: Cassette for commercial tape records and domestic use

Mechanical requirements and dimensions, including track allocation (First edition, 1986).

Part 8: Eight-track magnetic tape cartridge for commercial tape records and domestic use

Mechanical requirements and dimensions, including track allocation (in preparation).

Part 9: Magnetic tape cartridge for professional use

Mechanical requirements and dimensions, including track allocation (in preparation).

Part 10: Time and address codes (in preparation).

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MAGNETIC TAPE SOUND RECORDING AND REPRODUCING SYSTEMS

Part 4: Mechanical magnetic tape properties

1. Scope

This standard applies to non-perforated magnetic tape used for professional and domestic analogue sound recording and reproduction.

2. Object

The object of this standard is to list and define the methods of measurement and equipment necessary to determine the mechanical characteristics of magnetic recording tape. It will also enable users of magnetic tapes to compare technical product data of different manufacturers, produced in accordance with this standard.

3. Standard atmospheric conditions for testing

Ambient temperature: 20 ± 5 °C

Relative humidity: 60 ± 15 %

The sample roll of tape shall be incubated for 24 h at the stated conditions before the test is commenced. <https://standards.iteh.ai/catalog/standards/sist/98a393fd-3ebc-4a97-9b64-93c7763b1c52/sist-en-60094-4-1999>

4. Information to be supplied by the magnetic tape manufacturer

Information supplied by the manufacturer shall fall into two distinct categories:

- a) mandatory information to be clearly shown in the presentation of technical data, indicated by the word “mandatory” on the right-hand side of the page, in this standard;
- b) optional information which may be given at the discretion of the manufacturer, indicated by the word “optional” on the right-hand side of the page, in this standard.

4.1 Recommended form for published data

Where data obtained in accordance with this standard or with any other IEC publication form part of publicity material, they should be clearly set apart and should be preceded by the following particulars:

- i) the number of the appropriate IEC publication;
- ii) maker's name or trade mark;
- iii) maker's type reference and/or description;
- iv) base material (a generic name is sufficient).