
INTERNATIONAL STANDARD



1188

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Cinematography — Recording characteristic for magnetic sound record on 16 mm motion-picture film — Specifications

*Cinématographie — Caractéristique d'enregistrement magnétique du son sur film cinématographique de 16 mm —
Spécifications*

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FOREWORD

ISO (the International Organization for Standardization) is a worldwide federation of national standards institutes (ISO Member Bodies). The work of developing International Standards is carried out through ISO Technical Committees. Every Member Body interested in a subject for which a Technical Committee has been set up has the right to be represented on that Committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work.

Draft International Standards adopted by the Technical Committees are circulated to the Member Bodies for approval before their acceptance as International Standards by the ISO Council.

International Standard ISO 1188 (originally ISO/DIS 644) was drawn up by Technical Committee ISO/TC 36, *Cinematography*, and circulated to the Member Bodies in October 1972.

It has been approved by the Member Bodies of the following countries :

Australia	India	Sweden
Belgium	Italy	Switzerland
Canada	Japan	Thailand
Czechoslovakia	Netherlands	United Kingdom
Egypt, Arab Rep. of	New Zealand	U.S.S.R.
France	Romania	
Germany	South Africa, Rep. of	

The Member Body of the following country expressed disapproval of the document on technical grounds :

U.S.A.

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1 SCOPE AND FIELD OF APPLICATION

This International Standard specifies the recorded characteristic for magnetic sound records on 16 mm perforated magnetic film and 16 mm motion-picture film with magnetic striping when used at the nominal speed of 24 frames (18,3 cm or 7.2 in) per second, or 25 frames (19,05 cm or 7.5 in) per second.

2 RECORDED CHARACTERISTIC

With constant sine-wave signal applied to the input of the recording system, the nominal characteristic in effective values of the short-circuit magnetic flux versus frequency shall fall with increasing frequency in conformity with the impedance of a parallel combination of a capacitance and a resistance having a time constant $t = 70 \mu s$.

The curve defined above is represented by

$$N \text{ (in decibels)} = -10 \log (1 + 4\pi^2 f^2 t^2)$$

where

f is the frequency in hertz;

t is the time constant in seconds.

The approximate numerical values are given in the table.

3 TOLERANCES

3.1 Magnetic sound records on films for the exchange of television programmes shall be recorded to the characteristic specified in clause 2 within the tolerances given in figure 1.

3.2 In the case of sound records primarily intended for reproduction on portable equipment, the tolerances of figure 2 may be applied instead of the tolerances of figure 1.

NOTE — This International Standard has substantially the same technical content as the relevant portion of CCIR Recommendation 265-2.

TABLE — Approximate numerical values of the recorded characteristics

Frequency Hz	N dB
40	− 0,00
50	− 0,00
63	− 0,00
80	− 0,01
100	− 0,01
125	− 0,01
160	− 0,02
200	− 0,03
250	− 0,05
315	− 0,08
400	− 0,13
500	− 0,21
630	− 0,32
800	− 0,51
1 000	− 0,77
1 250	− 1,15
1 600	− 1,75
2 000	− 2,49
2 500	− 3,44
3 150	− 4,65
4 000	− 6,12
5 000	− 7,66
6 300	− 9,38
8 000	− 11,26
10 000	− 13,08
12 500	− 14,95
16 000	− 17,03