



## **Cinematography — Recorded characteristic for magnetic sound records on 35 mm motion-picture film — Specifications**

*Cinématographie — Caractéristique d'enregistrement magnétique sur film cinématographique de 35 mm perforé — Spécifications*

First edition — 1975-01-15

---

UDC 778.534.455 : 771.531.351

Ref. No. ISO 1189-1975 (E)

**Descriptors :** cinematography, motion-picture film, magnetic recording, sound recording, recording characteristics.

Price based on 2 pages

## 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.

Prior to 1972, the results of the work of the Technical Committees were published as ISO Recommendations; these documents are now in the process of being transformed into International Standards. As part of this process, Technical Committee ISO/TC 36 has reviewed ISO Recommendation R 1189 and found it suitable for transformation. International Standard ISO 1189 therefore replaces ISO Recommendation R 1189-1971.

ISO Recommendation R 1189 was approved by the Member Bodies of the following countries :

Australia	France	Romania
Belgium	Germany	Sweden
Brazil	Hungary	South Africa, Rep. of
Czechoslovakia	Israel	Switzerland
Canada	Italy	United Kingdom
Chile	New Zealand	U.S.S.R.
Denmark	Poland	

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

Netherlands

No Member Body disapproved the transformation of ISO/R 1189 into an International Standard.

# Cinematography — Recorded characteristic for magnetic sound records on 35 mm motion-picture film — Specifications

## 1 SCOPE AND FIELD OF APPLICATION

This International Standard specifies the recorded characteristic for magnetic sound records on 35 mm motion-picture film with magnetic striping when used at the nominal speed of 24 frames (45,6 cm or 18 in) per second or 25 frames (47,5 cm or 18.7 in) per second.

NOTE — This International Standard and relevant portions of Recommendations No. 265-2 of the CCIR have substantially the same technical content.

## 2 RECORDED CHARACTERISTIC

2.1 With constant sine-wave signal applied to the input of the recording system, the nominal characteristic 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 resistance having a time constant  $t = 35 \mu\text{s}$ .

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.

2.2 The corresponding reproducing characteristic is that which gives a flat response when reproducing a sound track recorded with the relative short circuit flux levels stated in 2.1.

TABLE

Frequency Hz	N dB
40	− 0,00
50	− 0,00
63	− 0,00
80	− 0,00
100	− 0,00
125	− 0,00
160	− 0,01
200	− 0,01
250	− 0,01
315	− 0,02
400	− 0,03
500	− 0,05
630	− 0,08
800	− 0,13
1 000	− 0,21
1 250	− 0,32
1 600	− 0,51
2 000	− 0,77
2 500	− 1,15
3 150	− 1,70
4 000	− 2,49
5 000	− 3,44
6 300	− 4,65
8 000	− 6,12
10 000	− 7,66
12 500	− 9,32
16 000	− 11,26