INTERNATIONAL STANDARD

ISO 6025

Third edition
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Cinematography — Analogue photographic sound test films, 35 mm and 16 mm — Specifications

Cinématographie — Films pour les essais d'enregistrement sonore photographique analogue, 35 mm et 16 mm — Spécifications

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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established 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. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 3.

Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

Attention is drawn to the possibility that some of the elements of this International Standard may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights.

International Standard ISO 6025 was prepared by Technical Committee ISO/TC 36, *Cinematography*.

This third edition cancels and replaces the second edition (ISO 6025:1993), clause 1 and Table 7 of which have been revised. Clause 2 has also been revised and a bibliography has been added.

Annexes A and B of this International Standard are for information only.

Cinematography — Analogue photographic sound test films, 35 mm and 16 mm — Specifications

1 Scope

1.1 This International Standard specifies basic technical characteristics for the international exchange of analogue photographic sound test films intended for checking, adjusting and measuring motion-picture projector sound systems and sound reproducing channels of motion-picture installations for monophonic or stereophonic reproduction.

1.2 This International Standard specifies types and technical characteristics of test films made on 35 mm and 16 mm motion-picture films.

1.3 This International Standard includes test films intended for the checking, adjusting and measuring of

a) focusing and azimuth of the scanning beam,

b) scanning beam width and its position relative to the reference edge of the film,

c) uniformity of the scanning beam illumination,

d) level output balance of several motion-picture projectors,

e) frequency response of the sound reproduction channel, and

f) non-uniformity of film travel.

2 Normative references

The following normative documents contain provisions which, through reference in this text, constitute provisions of this International Standard. For dated references, subsequent amendments to, or revisions of, any of these publications do not apply. However, parties to agreements based on this International Standard are encouraged to investigate the possibility of applying the most recent editions of the normative documents indicated below. For undated references, the latest edition of the normative document referred to applies. Members of ISO and IEC maintain registers of currently valid International Standards.

ISO 69:1998, *Cinematography — 16 mm motion-picture and magnetic film — Cutting and perforating dimensions.*

ISO 491:1995, *Cinematography — 35 mm motion-picture film and magnetic film — Cutting and perforating dimensions.*

ISO 4243:1979, *Cinematography — Picture image area and photographic sound record on 16 mm motion-picture release prints — Positions and dimensions.*

ISO 7343:1993, *Cinematography — Two-track photographic sound records on 35 mm motion-picture prints — Positions and width dimensions.*

IEC 60386:1972, *Method of measurement of speed fluctuations in sound recording and reproducing equipment.*

3 Specifications common to all types of photographic sound test films

3.1 Test films shall be made on motion-picture raw stock films, the cutting and perforating dimensions of which shall be in accordance with ISO 491 for 35 mm film and ISO 69 for 16 mm film.

3.2 The film stock should preferably be polyester base or low-shrinkage triacetate base.

3.3 The location and width dimensions of sound records shall be in accordance with ISO 7343 for 35 mm film and ISO 4243 for 16 mm film.

3.4 Test films shall be splice-free, except where joins are an essential part of the test film.

3.5 Each film shall be intended primarily for use at 24 frames per second. All frequencies and velocity tolerances given in this International Standard refer to that velocity. A speed of 25 frames per second may be used. Other test films may be developed for use at other speeds, if the speeds are so stated.

4 Test films for checking and adjusting sound focus and azimuth

The characteristics of the test signal for checking and adjusting sound focus and azimuth shall be as given in Table 1.

Table 1

Test signal characteristic	35 mm	16 mm
Frequency, kHz	9	7,1
Frequency tolerance, %	± 3	± 3
Maximum output deviation, dB	± 0,3	± 0,5
Azimuth angle (relative to reference edge), degrees (°)	90	90
Azimuth tolerance, minutes (′) [a]	± 5	± 5
Minimum modulation as a percentage of maximum, %	80	80
Minimum duration of signal, s	100	100
[a] See annex A.		

5 Test films for checking and adjusting the lateral position of the film in relation to the scanning beam (buzz track)

The characteristics of the test signal for checking and adjusting the lateral position of the film in relation to the scanning beam shall be as given in Table 2.

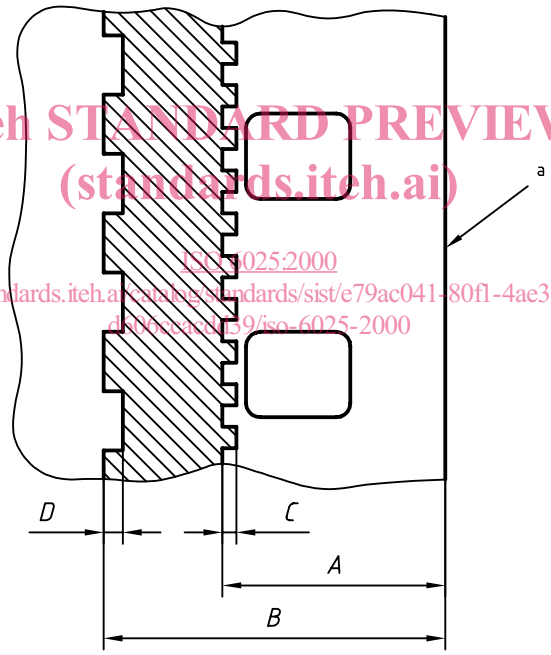
Table 2

Test signal characteristic	All films
Frequency on the picture image side, Hz	300
Frequency on the opposite side, Hz	1 000
Frequency tolerance, %	± 10
Form	Square wave
Minimum duration of signal, s	100

The signal location and width dimensions shall be as given in Table 3.

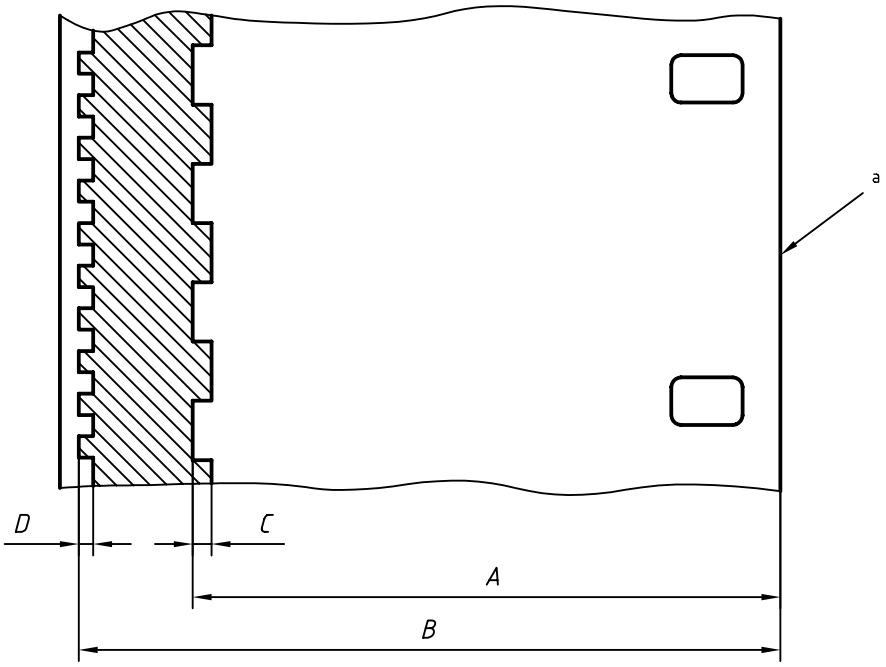
Table 3

Dimension	35 mm (see Figure 1)		16 mm (see Figure 2)	
	mm	in	mm	in
A	5,10 ± 0,03	0,201 ± 0,001	13,58 ± 0,03	0,535 ± 0,001
B	7,23 ± 0,03	0,285 ± 0,001	15,39 ± 0,03	0,606 ± 0,001
C	0,18 min.	0,007 min.	0,30 min.	0,012 min.
D	0,30 min.	0,012 min.	0,18 min.	0,007 min.



a Reference edge

Figure 1 — 35 mm buzz track



a Reference edge

Figure 2 — 16 mm buzz track

6 Test films for checking and adjusting uniformity of the scanning beam illumination (snake track)

The characteristics of the test signal for checking and adjusting the uniformity of the scanning beam illumination shall be as given in Table 4.

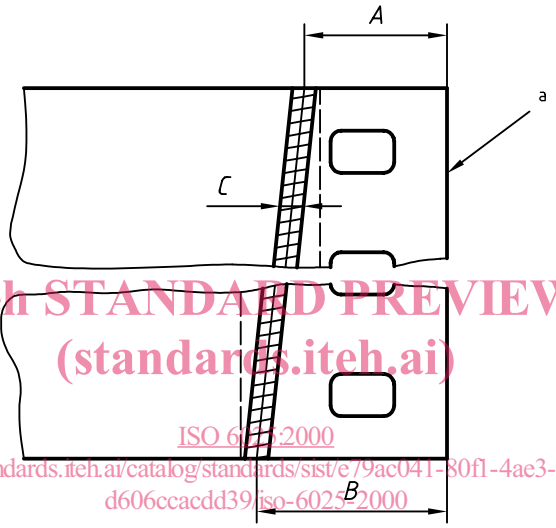
Table 4

Test signal characteristic	All films
Frequency, Hz	1 000
Modulation	Maximum consistent with dimension *C*
Maximum output deviation along the whole of the test film, dB	± 0,5
Duration of signal [a], s	6
[a] The traverse of the snake track shall not be less than the duration of the signal.	

The signal location and width dimensions shall be as given in Table 5.

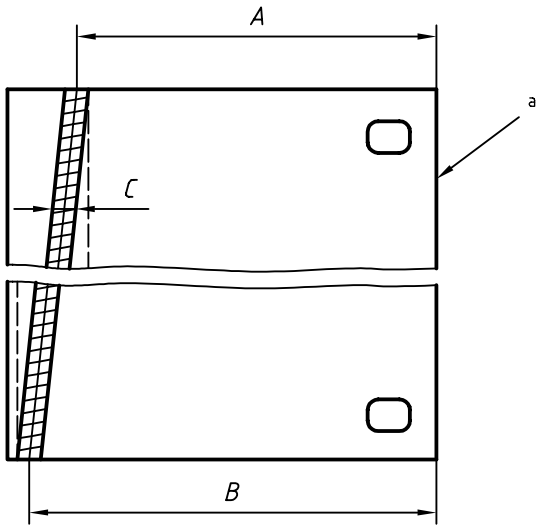
Table 5

Dimension	35 mm (see figure 3)		16 mm (see figure 4)	
	mm	in	mm	in
A	5,20 ± 0,03	0,205 ± 0,001	13,66 ± 0,03	0,538 ± 0,001
B	7,13 ± 0,03	0,281 ± 0,001	15,31 ± 0,03	0,603 ± 0,001
C	0,18 max.	0,007 max.	0,13 max.	0,005 max.



a Reference edge

Figure 3 — 35 mm snake track



a Reference edge

Figure 4 — 16 mm snake track