
International Standard



6343

INTERNATIONAL ORGANIZATION FOR STANDARDIZATION • МЕЖДУНАРОДНАЯ ОРГАНИЗАЦИЯ ПО СТАНДАРТИЗАЦИИ • ORGANISATION INTERNATIONALE DE NORMALISATION

Micrographics — Unitized microfilm carrier (aperture card) — Determination of adhesion of protection sheet to aperture adhesive

Micrographie — Cartes à fenêtre — Détermination de l'adhérence du papier de protection à l'adhésif de la fenêtre

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Descriptors : reproduction (copying), microscopy, aperture cards, determination, adhesion, dimensions, adhesion tests.

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 6343 was developed by Technical Committee ISO/TC 171, *Micrographics*, and was circulated to the member bodies in July 1980.

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It has been approved by the member bodies of the following countries :

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Australia	Egypt, Arab Rep. of	Netherlands
Belgium	France	Romania
Brazil	Germany, F. R.	Spain
Canada	Ireland	United Kingdom
Czechoslovakia	Italy	USA
Denmark	Japan	USSR

The member body of the following country expressed disapproval of the document on technical grounds :

Poland

Micrographics — Unitized microfilm carrier (aperture card) — Determination of adhesion of protection sheet to aperture adhesive

0 Introduction

Certain kinds of unitized microfilm carrier are provided with a protection sheet attached by a pressure-sensitive adhesive. As the bond strength of pressure-sensitive adhesive increases with contact time, so ease of removal of the protection sheet varies with time.

This International Standard provides a method of determining the maximum and minimum adhesion of the protection sheet and the pressure-sensitive adhesive to facilitate the removal of the protection sheet manually or automatically.

1 Scope and field of application

This International Standard specifies a method of determining the maximum and minimum adhesion of the protection sheets and the pressure-sensitive adhesive areas on certain unitized microfilm carriers (aperture cards).

2 References

ISO 6196/1, *Micrographics — Vocabulary — Section 01 : General terms.*

ISO 6196/2, *Micrographics — Vocabulary — Section 02 : Image placement and methods of recording.*

ISO 6196/3, *Micrographics — Vocabulary — Section 03 : Film processing.*¹⁾

3 Definitions

For definitions of the technical terms for micrographics employed in this International Standard, see ISO 6196.

For the purposes of this International Standard, the following definitions apply :

3.1 aperture adhesive : A normally tacky material coated on a backing for holding film in an aperture card.

3.2 protection sheet : Material used to protect and preserve the pressure-sensitive adhesive on aperture cards before film is mounted.

4 Apparatus

The materials needed to perform the adhesion tests are :

4.1 Mandrel, made of hard wood, metal or plastics having the dimensions indicated in figure 1 and table 1.

4.2 Mandrel block, made of hard wood, metal or plastics having the dimensions indicated in figure 1 and table 1.

4.3 Card suspension rack : a clip-board with the centre cut out to permit the weight to hang unimpeded during the test (see figure 2 and table 2 for dimensions).

4.4 Weighted crocodile clip, the total mass of which shall be $3 \pm 0,01$ g (see figure 2).

4.5 Watch, equipped with a sweep-type second hand.

4.6 Razor blade or an equivalent sharp cutting instrument.

5 Conditioning and testing atmosphere

All aperture cards tested for adhesion characteristics shall be pre-conditioned as follows :

5.1 Age of sample

Conditioning of the aperture card sample shall not begin until at least 48 h after the sample has been manufactured. The manufacturer shall make the test within 15 days of manufacture of the cards from which the sample was selected. The user may make the test at any time between the receipt of the cards and the date that the manufacturer's guarantee expires.

1) At present at the stage of draft.

5.2 Temperature, humidity, duration

All test samples shall be conditioned, loosely assembled, for at least 6 h before testing. Samples shall be conditioned and tested at a temperature of 23 ± 2 °C and a relative humidity within the range 48 to 52 %.

6 Methods of test

6.1 Minimum adhesion test procedure and requirements

6.1.1 Sample

Use a pre-conditioned aperture card (sample) as described in 5.1 and 5.2.

6.1.2 Positioning

Place the card against the stops on the mandrel block (4.2) in such a way that the aperture adhesive backing will be in contact with the mandrel (4.1) when it is pressed on to the card (mounting side down). Force the mandrel into the groove in the mandrel block until it bottoms. The two long edges of the card should remain parallel (see figure 1).

6.1.3 Observation

Observe the protection sheet through the opening in the mandrel block.

6.1.4 Requirement

A card is acceptable if the protection sheet totally adheres to the aperture adhesive immediately after the test. If the protection sheet does not totally adhere to the aperture adhesive, the card is unacceptable.

6.2 Maximum adhesion test procedure and requirements

6.2.1 Sample

Use a pre-conditioned aperture card (sample) as described in 5.1 and 5.2.

6.2.2 Adhesive slitting

Using the razor blade (4.6), slit the aperture adhesive, parallel to the long edge of the aperture, between the card stock and the protection sheet from column 54 to column 75. Further slit the aperture adhesive, along the short edge of the aperture, so that a tab can be peeled from the protection sheet (see figure 2).

6.2.3 Clip-board positioning

Peel back the aperture adhesive tab of the aperture approximately 6,3 to 9,5 mm, from the corner of the protection sheet at the column 54. Suspend the prepared sample card on the rack (4.3) with the aperture located in the cut-out area of the clip-board.

6.2.4 Attaching crocodile clip

With the clip-board in the vertical position and the peeled-back tab uppermost, attach the weighted crocodile clip (4.4) to the peeled-back tab of aperture adhesive. Do not release the clip until the point of peel-back has been noted. (Use a reference scale as shown in figure 2).

6.2.5 Weight release

Release the weight with care (to preclude any pendulum action). Simultaneously note the position of the watch sweep hand (4.5).

6.2.6 Requirement

The adhesion characteristics of the test sample shall be considered acceptable when the point of peel-back moves a minimum of six columns (13,3 mm) within 1 min.

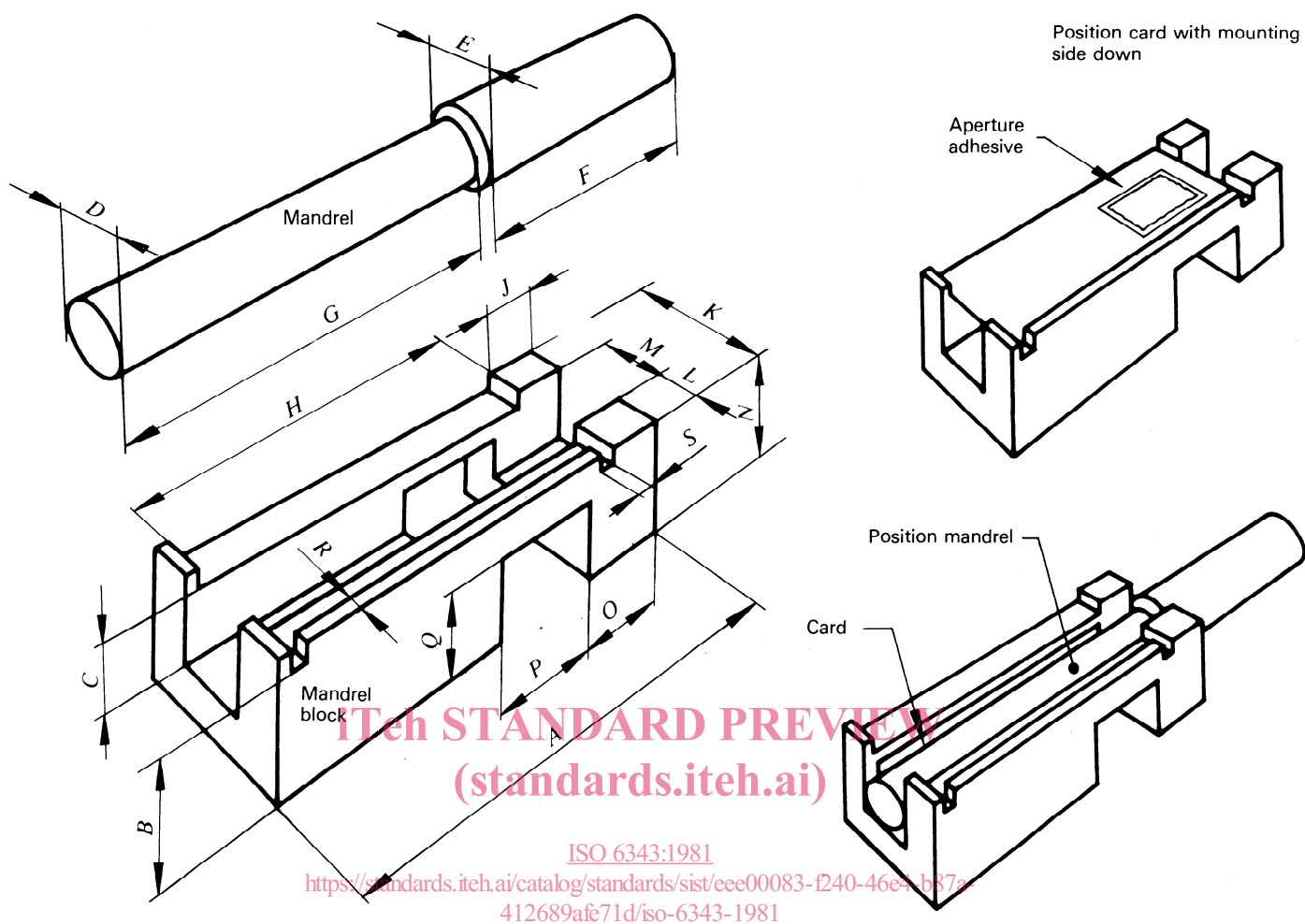


Figure 1 — Minimum adhesion test apparatus

Table 1 — Dimensions for minimum adhesion test apparatus

Dimensions in millimetres

Dimension	Minimum	Maximum
<i>A</i>	227,8	229,4
<i>B</i>	59,7	61,2
<i>C</i>	43,7	45,2
<i>D</i>	34,67	35,18
<i>E</i>	47,0	48,5
<i>F</i>	100,8	102,4
<i>G</i>	227,8	229,4
<i>H</i>	187,7	189,2
<i>J</i>	24,6	26,2
<i>K</i>	91,2	92,7
<i>L</i>	31,8	33,3
<i>M</i>	36,27	36,78
<i>N</i>	72,4	73,9
<i>O</i>	37,3	38,9
<i>P</i>	54,1	55,6
<i>Q</i>	47,0	48,5
<i>R</i>	8,9	10,4
<i>S</i>	11,9	13,5

Table 2 – Dimensions for maximum adhesion test apparatus

Dimensions in millimetres

Dimension	Minimum	Maximum
A	133,4	134,9
B	63,5	65,0
C	152,4	153,9

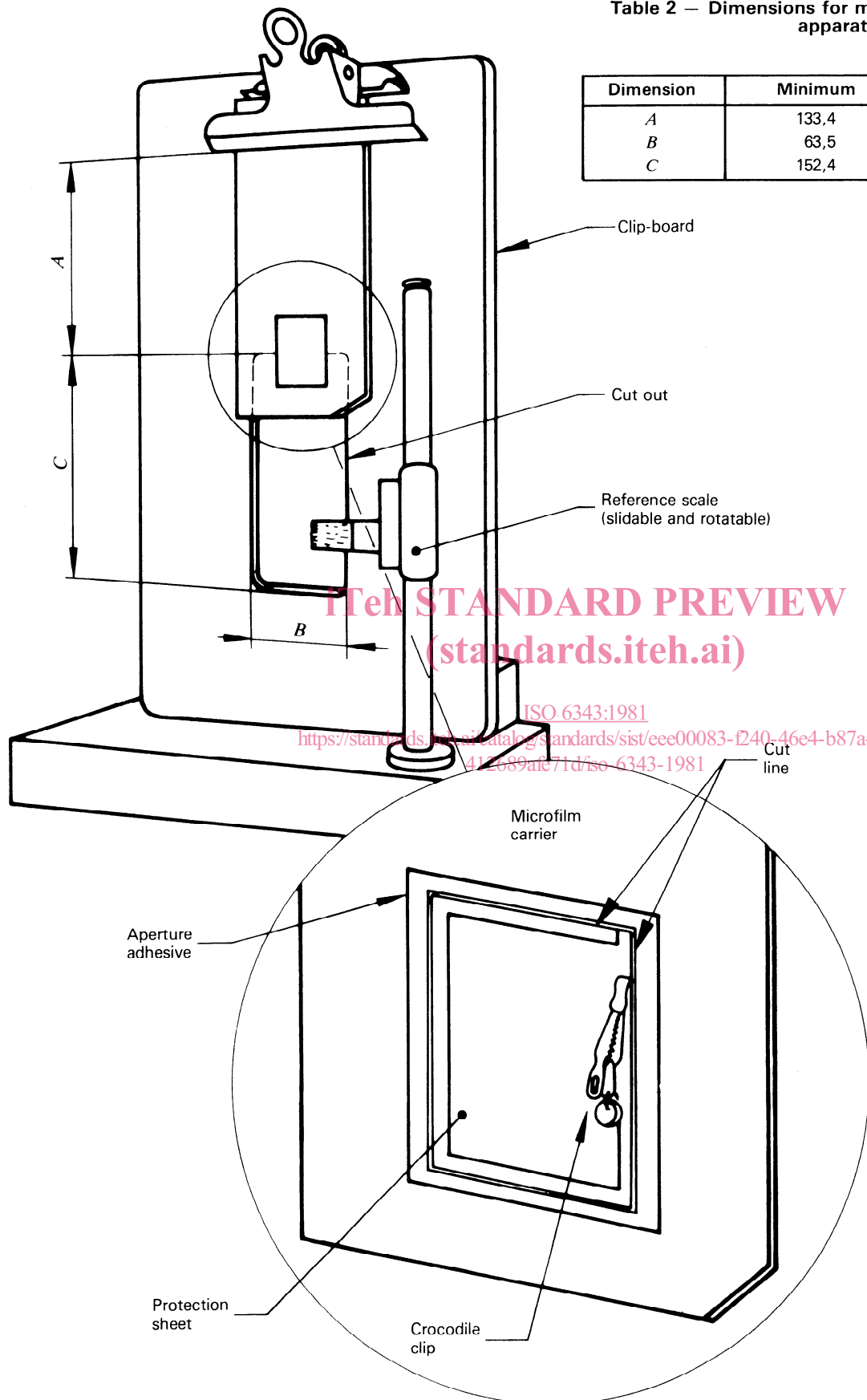


Figure 2 – Maximum adhesion test apparatus

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