SLOVENSKI STANDARD
SIST EN ISO/IEC 10373:1998

01-junij-1998

Identification cards - Test methods (ISO/IEC 10373:1993)

Identification cards - Test methods (ISO/IEC 10373:1993)

Identifikationskarten - Prüfverfahren (ISO/IEC 10373:1993)

Cartes d'identification - Méthodes d'essai (ISO/IEC 10373:1993)

Ta slovenski standard je istoveten z: **EN ISO/IEC 10373:1995**

ICS:

35.240.15	Identifikacijske kartice in sorodne naprave	Identification cards and related devices

SIST EN ISO/IEC 10373:1998 **en**

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Identification cards - Test methods (ISO/IEC 10373:1993)

Cartes d'identification - Méthodes d'essai (ISO/IEC 10373:1993)

Identifikationskarten - Prüfverfahren (ISO/IEC 10373:1993)

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

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CEN

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

Central Secretariat: rue de Stassart,36 B-1050 Brussels

Foreword

This European Standard has been taken over by the Technical Committee CEN/TC 224 "Machine-readable cards, related device interfaces and operations" from the work of the International Technical Committee ISO/IEC JTC 1, "Information technology".

This European Standard shall be given the status of a National Standard, either by publication of an identical text or by endorsement, at the latest by August 1995, and conflicting national standards shall be withdrawn at the latest by August 1995.

According to CEN/CENELEC Internal Regulations, the following countries are bound to implement this European Standard: Austria, Belgium, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, United Kingdom.

Endorsement notice

The text of the International Standard ISO/IEC 10373:1993 has been approved by CEN as a European Standard without any modification.

INTERNATIONAL STANDARD

ISO/IEC 10373

First edition
1993-12-15

Identification cards — Test methods

Cartes d'identification — Méthodes d'essai

Reference number
ISO/IEC 10373:1993(E)

Contents

Foreword

ISO (the International Organization for Standardization) and IEC (the International Electrotechnical Commission) form the specialized system for worldwide standardization. National bodies that are members of ISO or IEC participate in the development of International Standards through technical committees established by the respective organization to deal with particular fields of technical activity. ISO and IEC technical committees collaborate in fields of mutual interest. Other international organizations, governmental and non-governmental, in liaison with ISO and IEC, also take part in the work.

In the field of information technology, ISO and IEC have established a joint technical committee, ISO/IEC JTC 1. Draft International Standards adopted by the joint technical committee are circulated to national bodies for voting. Publication as an International Standard requires approval by at least 75 % of the national bodies casting a vote.

International Standard ISO/IEC 10373 was prepared by Joint Technical Committee ISO/IEC JTC 1, *Information technology*, Subcommittee SC 17, *Identification cards and related devices*.

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Identification cards - Test methods

1 Scope

This International Standard describes test methods for the characteristics of identification cards in accordance with ISO 7810, ISO 7811, ISO 7813, and ISO 7816.

NOTE 1 Criteria for acceptability do not form part of this International Standard but will be found in the International Standards mentioned above.

NOTE 2 Test methods described in this International Standard are intended to be performed separately. A given card is not required to pass through all the tests sequentially.

2 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this International Standard. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this International Standard are encouraged to investigate the possibility of applying the most recent editions of the standards listed below. Members of IEC and ISO maintain registers of currently valid International Standards.

ISO 5-1:1984, *Photography - Density measurements - Part 1: Terms, symbols and notations.*

ISO 5-2:1991, *Photography - Density measurements - Part 2: Geometric conditions for transmission density.*

ISO 5-3:1984, *Photography - Density measurements - Part 3: Spectral conditions.*

ISO 105-E04:1989, *Textiles - Tests for colour fastness - Part E04: Colour fastness to perspiration.*

ISO 1302:1992, *Technical drawings - Method of indicating surface texture.*

ISO 1817:1985, *Rubber, vulcanized - Determination of the effect of liquids.*

ISO 1880:1979, *Instruments for the measurement of surface roughness by the profile method - Contact (stylus) instruments of progressive profile transformation - Profile recording instruments.*

ISO 9227:1990, *Corrosion tests in artificial atmospheres - Salt spray.*

ISO 7810:1993, *Identification cards - Physical characteristics.*

ISO 7811-1:1993, *Identification cards - Recording technique - Part 1: Embossing.*

ISO 7811-2:1993, *Identification cards - Recording technique - Part 2: Magnetic stripe.*

ISO 7811-3:1993, *Identification cards - Recording technique - Part 3: Location of embossed characters on ID-1 cards.*

ISO 7811-4:1993, *Identification cards - Recording technique - Part 4: Location of read-only magnetic tracks - Track 1 and 2.*

ISO 7811-5:1993, *Identification cards - Recording technique - Part 5: Location of read-write magnetic track - Track 3.*

ISO 7813:1993, *Identification cards - Financial transaction cards.*

ISO 7816-1:1987, *Identification cards - Integrated circuit(s) cards with contacts - Part 1: Physical characteristics.*

ISO 7816-2:1988, *Identification cards - Integrated circuit(s) cards with contacts - Part 2: Dimensions and location of the contacts.*

IEC 512-2:1976, *Electromechanical components for electronic equipment; basic testing procedures and measuring methods - Part 2: General examination, electrical continuity and contact resistance tests, insulation tests and voltage stress tests.*

3 Definitions

For the purpose of this International Standard, the following definition applies.

3.1 Test method: Method for testing characteristics of identification cards for the purpose of confirming their compliance with International Standards.

4 Default test environment and conditioning

Unless otherwise specified, testing shall take place in an environment of temperature 23 °C ± 3 °C (73 °F ± 5 °F) and of relative humidity 40 % to 60 %. Identification cards shall be conditioned in this same environment for a period of 24 h before testing.

5 Test methods

5.1 Card warpage

The purpose of this test is to measure the extent of warpage in the test sample (see ISO 7810).
Card warpage is any deformation of card flatness.

5.1.1 Overall card warpage of unembossed and embossed cards

5.1.1.1 Apparatus: A profile projector or measuring device with a minimum accuracy of 0,01 mm.

5.1.1.2 Procedure: Place the card to be tested on the level rigid plate of the measuring apparatus. The card edges shall rest on the plate (warpage of the card in convex form to the plate).
Read the extent of warpage on the scale magnifier at the greatest point of displacement, measured from the front surface of the card.

5.1.1.3 Result: The extent of warpage at the greatest point of displacement (see figure 1).

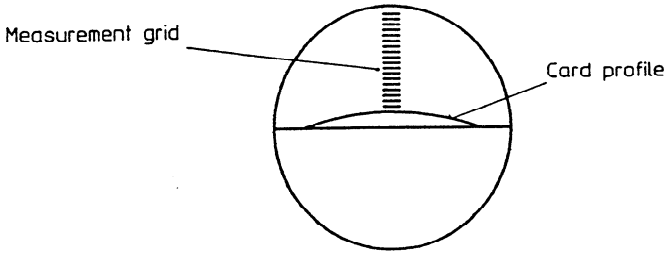

Figure 1 - Projector apparatus view of warpage measurement

5.1.2 Magnetic stripe area warpage for embossed and unembossed cards

5.1.2.1 Apparatus:

a) A level rigid plate whose surface roughness is not greater than 3,2 μm in accordance with ISO 1302. The plate shall contain an aperture to allow access for a micrometer probe, see figure 2;

b) a micrometer accurate to within 2,5 μm with a probe whose contact area is a hemisphere with a diameter in the range of 3 mm to 8 mm. The force exerted by the probe shall be f = 0,6 N $\pm$ 0,3 N;

c) a means of applying a force F = 2,2 N (0.5 lbf) evenly distributed on the front face of the card opposite the magnetic stripe area (see figure 2).

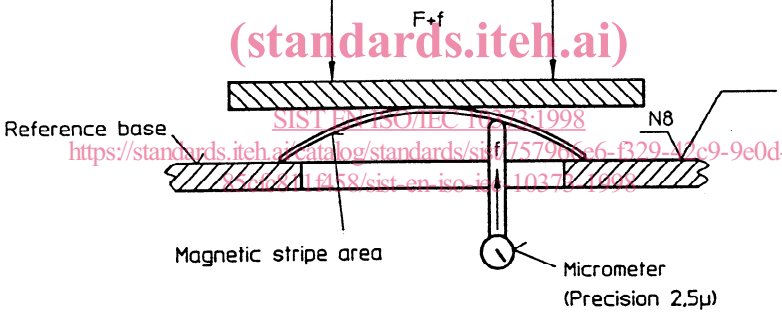

Figure 2 - Measuring arrangement

NOTE 3 The load of 2,2 N should be increased by an amount f to compensate for the micrometer force which is acting in the opposite direction to that force.

5.1.2.2 Procedure: Place the sample card, front side up, on the level rigid plate. Position the magnetic stripe area to be measured over the aperture. Apply the force F $(+f)$ directly over the magnetic stripe area on the front side of the card. Wait 1 minute before making any measurements. Measure the card stripe area for warpage at the nine positions along the stripe as shown in figure 3.

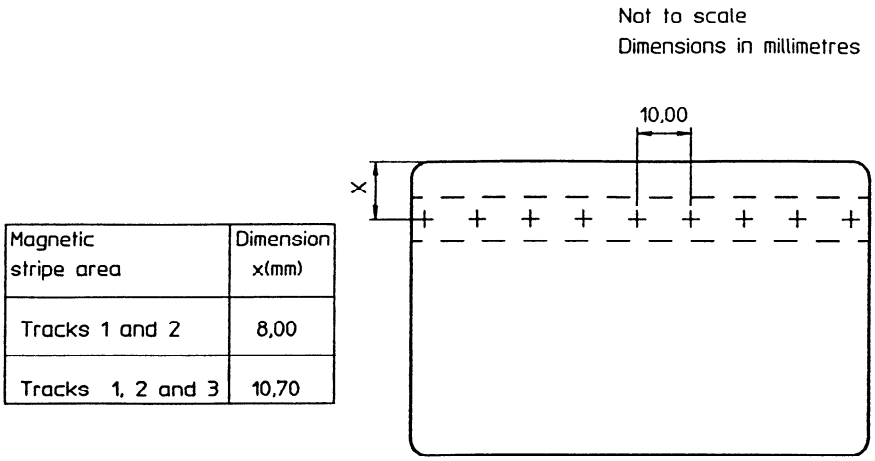

Figure 3 - Measuring points on the card

5.1.2.3 Result: The maximum value of the measurements.

5.2 Dimensions of cards

The purpose of this test is to measure the height, width and thickness of an unembossed card test sample (see ISO 7810).

5.2.1 Thickness of card measurements

5.2.1.1 Apparatus: A micrometer with a flat anvil and spindle whose diameter is within the range of 3 mm to 8 mm.

5.2.1.2 Procedure: Use the micrometer to measure the thickness of the card at four points, one in each of the four quadrants of the card (see figure 4 for the location of the quadrants). The measurements shall be made at locations on the card that do not include signature panels, magnetic stripes or contacts (integrated circuit/s cards), or any other raised area. Micrometer force shall be 3,5 N to 5,9 N.

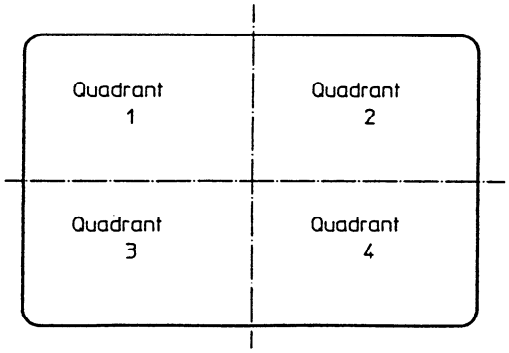

Figure 4 - Assignment of quadrants