
**Identification cards — Card service life —
Part 2:
Methods of evaluation**

*Cartes d'identification — Durée de vie des cartes —
Partie 2: Méthodes d'évaluation*

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ISO copyright office
Case postale 56 • CH-1211 Geneva 20
Tel. + 41 22 749 01 11
Fax + 41 22 749 09 47
E-mail copyright@iso.org
Web www.iso.org

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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.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of the joint technical committee is to prepare International Standards. 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.

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

ISO/IEC 24789-2 was prepared by Joint Technical Committee ISO/IEC JTC 1, *Information technology*, Subcommittee SC 17, *Cards and personal identification*.

ISO/IEC 24789 consists of the following parts, under the general title *Identification cards — Card service life*:

- *Part 1: Application profiles and requirements*
- *Part 2: Methods of evaluation*

Introduction

This part of ISO/IEC 24789 comprises methods of evaluation of identification (ID) card service life.

These methods of evaluation complement the application profiles and requirements defined in ISO/IEC 24789-1, which are intended to be used by card issuers, card manufacturers and card component suppliers to represent the comparative rigour of various ID card service life applications. They provide a means for ranking and comparing the main factors affecting ID card service life in a manner that is amenable to evaluation using the methods defined or referenced in this part of ISO/IEC 24789.

Identification cards — Card service life —

Part 2: Methods of evaluation

1 Scope

This part of ISO/IEC 24789 specifies methods of evaluation for ID-1 identification card service life in the applications referred to in ISO/IEC 24789-1. It contains no additional or changed requirements for the ID-1 card properties defined in other applicable standards.

NOTE 1 At the time of publishing this first edition, there is limited data to show direct equivalence to any measure of actual field use conditions. It will not be possible to establish any such equivalence until and unless a degree of quantitative correlation has been established for the ID card construction in question.

NOTE 2 For the convenience of certain users, non-S.I. equivalents are given for some quantity values where these are in common use in the ID card industry. These equivalents appear in parentheses and are for information only.

2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO/IEC 24789-1, *Identification cards — Card service life — Part 1: Application profiles and requirements*

ISO/IEC 7810, *Identification cards — Physical characteristics*

ISO/IEC 7811-2, *Identification cards — Recording technique — Part 2: Magnetic stripe — Low coercivity*

ISO/IEC 7811-6, *Identification cards — Recording technique — Part 6: Magnetic stripe — High coercivity*

ISO/IEC 7811-8, *Identification cards — Recording technique — Part 8: Magnetic stripe — Coercivity of 51,7 kA/m (650 Oe)*

ISO/IEC 10373-1, *Identification cards — Test methods — Part 1: General characteristics*

ISO/IEC 10373-2, *Identification cards — Test methods — Part 2: Cards with magnetic stripes*

ISO/IEC 14443-1, *Identification cards — Contactless integrated circuit cards — Proximity cards — Part 1: Physical characteristics*

ISO 105-B02, *Textiles — Tests for colour fastness — Part B02: Colour fastness to artificial light: Xenon arc fading lamp test*

ISO 3310-1, *Test sieves — Technical requirements and testing — Part 1: Test sieves of metal wire cloth*

IEC 60068-2-78, *Environmental testing — Part 2-78: Tests — Test Cab: Damp heat, steady state*

IEC 60454-2, *Pressure-sensitive adhesive tapes for electrical purposes — Part 2: Methods of test*

CIE Publication 116-1995, *Industrial Colour-Difference Evaluation*

3 Terms, definitions and abbreviated terms

3.1 Terms and definitions

For the purposes of this document, the terms, definitions, symbols and abbreviations given in ISO/IEC 7810, ISO/IEC 10373-1, ISO/IEC 10373-2, ISO/IEC 24789-1 and the following apply.

3.1.1

card fracture

crack or break in a card whose depth is at least one third of the card thickness

3.2 Abbreviated terms

ICM integrated circuit(s) module

ICC integrated circuit(s) card

4 Default items applicable to the evaluation methods

4.1 Test environment

Unless otherwise specified, evaluation shall take place in an environment having a temperature $23^{\circ}\text{C} \pm 3^{\circ}\text{C}$ ($73^{\circ}\text{F} \pm 5^{\circ}\text{F}$) and relative humidity of 40 % to 60 %.

4.2 Pre-conditioning

Where pre-conditioning is required by the evaluation method, the identification cards to be evaluated shall be conditioned to the default test environment for a period of 24 h before evaluation.

4.3 Selection of evaluation methods

Methods of evaluation shall be applied as required by the application profile of the card defined in ISO/IEC 24789-1.

4.4 Default tolerance

Unless otherwise specified, a default tolerance of $\pm 5\%$ shall be applied to the quantity values given to specify the characteristics of the equipment (e.g. linear dimensions) and the evaluation procedures (e.g. equipment adjustments).

4.5 Total measurement uncertainty

The total measurement uncertainty for each quantity determined by these evaluation methods shall be stated in the test report.