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**NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

GB/T 28177.1-2011

**Identification cards -- Thin flexible cards -- Part 1: Physical
characteristics**

识别卡 柔性薄卡 第1部分：物理特性

(English Translation)

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References

Foreword

GB/T 28177 "flexible thin card identification card" is divided into three parts.

--- Part 1. Physical characteristics;

--- Part 2. magnetic recording technology;

--- Part 3. Test methods.

This section GB/T Part of 128,177.

This section drafted in accordance with GB/T 1.1-2009 given rules.

This section uses redrafted law revision using ISO/IEC 15457-1:2008 "identification card thin flexible cards - Part 1. Physical characteristic".

This part of ISO/IEC 15457-1. Compared to 2008, the increase in the structure of the introduction and abbreviations (see 3.2).

This part of ISO/IEC 15457-1:2008 and its technical differences for the following reasons.

--- According to the current domestic situation, the terms and Appendix A handwriting and

sizing factor (sizingandpenwritingfactor) to sizing degree (sizingvalue), its control method to GB/T 460 "Determination of the degree of sizing of paper," a reference to the corresponding Parameter to be greater than or equal to 0.5mm.

This section also made the following editorial changes.

--- Increased introduction, which will be described in the scope of international standards on the use of flexible thin card and recording method used in the introduction;

--- For ease of use, an increase of abbreviations;

--- Because habits, changed the order of the terms;

--- Developed according to standard principles, references added ISO 2493, ISO 5636-3, ISO 8226-2 three criteria, in reference Delete the file in the literature;

--- For context correspondence, the position of the international standards 8.2.1 and 8.2.2 of the exchange, 8.4.2 and 8.4.3 of the position Exchange.

Consistency correspondence between this part of international documents and normative references of our files are as follows.

--- Determination of GB/T 12914-2008 Paper and cardboard tensile strength (ISO 1924-1:1992, ISO 1924-2:1994, MOD)

--- GB/T 742-2008 papermaking raw material, pulp, paper and board - Determination of ash (ISO 2144:1997, MOD)

--- GB/T 1543-2005 Paper and paperboard opacity (paper backing) measurement (diffuse reflectance method) (ISO 2471:1998, MOD)

--- GB/T 22364-2008 Determination of paper and cardboard bending stiffness (ISO 2493:1992, ISO 5629. 1983, MOD)

--- GB/T 457-2008 Determination of paper and cardboard folding endurance (ISO 5626:1993, MOD)

--- GB/T 456-2002 Paper and cardboard smoothness (Buick method) (ISO 5627:1995, IDT)

--- GB/T 458-2008 Determination of paper and paperboard air permeability (ISO 5636-2. 1984, ISO 5636-3:1992, ISO 5636-5. 2003, MOD)

--- GB/Determination of plastic film and sheet tear resistance of T 16578.2-2009 Part 2. Elmendorf (Elmendorf) method (ISO 6383-2. 1983, IDT)

--- GB/T 22899.2-2008 Determination of wet paper and paperboard expansion Part 2. Maximum relative humidity to 86 percent of all Cheng wet expansion (ISO 8226-2:1990, MOD)

--- GB/T 17554.1-2006 Identification cards - Test methods - Part 1. General characteristics (ISO/IEC 10373-1:1998, MOD) Please note that some of the content of this document may involve patents. Release mechanism of the present document does not assume responsibility for the identification of these patents.

This part of the National Information Technology Standardization Technical Committee (SAC/TC28) and focal points.

Introduction

Thin flexible card (TFC) is typically used to access the goods or services of automatic control, such as public transportation, highway toll systems, parking, with Gift certificates and the like.

In these applications, data can be written using different recording technology equipment and/or reading, for example, magnetic stripe, optical character recognition (OCR), bar code, non-contact technology.

Identification cards - Thin flexible cards Part 1. Physical characteristics

1 Scope

GB/T 28177 in this section specifies the physical characteristics of the two points in time during the life cycle of a flexible thin card.

--- When loaded to the card issuing device;

--- The time of release to the public.

This section considers the factors of human and machine aspects and clarify the minimum requirements.

This section identifies the original card size, and specifies the characteristics and dimensions.

This section gives guidelines for use in storage and under different environmental conditions of the card.

NOTE: ID-1 type card in GB/T 14916 in the provisions of this range does not match.

2 Normative references

The following documents for the application of this document is essential. For dated references, only the dated version suitable for use herein Member. For undated references, the latest edition (including any amendments) applies to this document.

GB/T 460 Determination of the degree of sizing of paper (GB/T 460-2008) ISO 1831
Printing specifications for optical character recognition

(Printing specifications for optical character recognition) ISO 1924-2 Paper and board Determination of tensile strength - Part 2. Constant rate of elongation method (20mm/min) (Paper and board-Determination of tensile properties-Part 2. Constant rate of elongation method (20mm/min)) ISO 2144 paper, board and pulp measured after 900 °C combustion residues (ash) of (Paper, board and pulps-Determination of residue (ash) on ignition at 900 °C) ISO 2471 Paper and paperboard opacity (paper backing) diffuse reflectance measurement method (Paper and board-Determination of opacity (paper backing) -Diffuse reflectance method) ISO 2493 Paper and board Determination of bending stiffness (Paper and board-Determination of resistance to bending) ISO 5626 Determination of folding paper (Paper-Determination of folding endurance) ISO 5627 Paper and paperboard smoothness (Buick method) (Paper and board-Determination of smoothness (Bekk method)) ISO 5629 Paper and board Determination of bending stiffness resonance method (Paper and board-Determination of bending stiffness-Resonance method) ISO 5636-3 Paper and board - Determination of air permeability (Paper and board-Determination of air permeance (medium range) -Part 3. Bendtsen method) Part 2 ISO 6383-2 Determination of plastic film and sheet tear resistance. the Elmendorf (Elmendorf) method (Plastics-Film and sheeting-Determination of tear resistance-Part 2. Elmendorf method) ISO 8226-2 Paper and board Determination of wet expansion Part 2. Maximum relative humidity 86% to wet expansion process (Paper and board-Measurement of hygroexpansivity-Part 2. Hygroexpansivity up to a maximum relative humidity of 86%)