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

GB/T 28210-2024

Replacing GB/T 28210-2011

Thermal paper

热敏纸

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Foreword

This document is in accordance with the provisions of GB/T 1.1-2020 "Guidelines for standardization work Part

1. Structure and drafting rules for standardization documents" Drafting. This document replaces GB/T 28210-2011 "Thermal Paper". Compared with GB/T 28210-2011, except for structural adjustments and editorial changes, In addition, the main technical changes are as follows:

- a) The scope has been changed (see Chapter 1, Chapter 1 of the.2011 edition);
- b) Added terms and definitions (see Chapter 3);
- c) The product classification has been changed to divide special thermal paper into Type I and Type II (see 4.1, 3.3 of the.2011 edition);
- d) Change the name of brightness (whiteness) index to D65 brightness (see 5.1, 5.2, 6.5, 4.1, 4.2, 5.5 of the.2011 edition);
- e) Change the name of the optical density index to density (see Table 1, Table 2, Appendix A, Appendix B, Appendix C, Appendix D,.2011 Edition 4.1, 4.2, Appendix A, Appendix B, Appendix C, Appendix D);
- f) Changed the requirements for the basis weight, tensile strength, tear resistance, heat resistance and moisture content of ordinary thermal paper (see Table 1,.2011 Version 4.1);
- g) The quantitative, D65 brightness, tensile strength, static color development performance, image preservation performance (light resistance, heat resistance) of special thermal paper have been changed. Performance), image protection performance, and delivery moisture index requirements (see Table 2, 4.2 of the.2011 edition);
- h) Added the index requirements and test methods for roughness and bisphenol A content

(see Table 1, Table 2,

i) The smoothness index requirements and test methods have been deleted (see Table 1, Table 2 and

1 Scope

GB/T 28210-2024 is the Chinese product standard for thermal paper: the paper used for till receipts, labels, tickets and fax and medical recorder output, which forms its image by heat rather than by ink. Two things decide whether it is fit for purpose, and the standard covers both. The first is imaging: the dynamic and static colour density, the sensitivity, the background whiteness and the resolution, which decide whether a receipt is readable at the speed the printer runs. The second is stability: the image has to survive light, heat, humidity, plasticisers and contact with adhesives and fats for as long as the record is needed, and thermal paper is notorious for fading. The standard also sets the physical requirements on grammage, thickness, smoothness and strength, the coating requirements, and increasingly the limits on the developer used, bisphenol A having been restricted in this application in several markets. The 2024 edition replaces GB/T 28210-2011. For a paper mill, a converter or a buyer in China, this is the acceptance text.

JJF1070-2023 Rules for the measurement and inspection of the net content of quantitatively packaged goods

2 Normative references

The contents of the following documents constitute the essential clauses of this document through normative references in this document. For referenced documents without a date, only the version corresponding to that date applies to this document; for referenced documents without a date, the latest version (including all amendments) applies to This document.

GB/T 450 Paper and paperboard test specimens and the determination of the longitudinal and transverse, front and back sides of the specimens

GB/T 451.1 Determination of size and skewness of paper and paperboard

GB/T 451.2 Paper and paperboard Part

GB/T 6682 Specifications and test methods for water used in analytical laboratories

GB/T 7974 Determination of blue light diffuse reflection factor D65 brightness of paper, paperboard and pulp (diffuse/vertical method, outdoor daylight conditions)

GB/T 10342 Packaging and marking of paper

GB/T 10739 Standard atmospheric conditions for handling and testing of paper, paperboard and pulp samples

GB/T 12914 Paper and paperboard - Determination of tensile strength - Constant rate of tension (20 mm/min)

GB/T 22363-2008 Determination of roughness of paper and paperboard (air leakage method) Bendtsen method and printed surface method

GB/T 23649 Printing technology process control - Optical, geometric and metrological requirements for reflection densitometers for printing

GB/T 34455 Paper, paperboard and pulp - Determination of 2,2-bis(4-hydroxyphenyl)propane (bisphenol A) - Liquid chromatography method

3 Terms and definitions

The following terms and definitions apply to this document.

3.1 Paper with a heat-sensitive coating on one side that can record when heated.

3.2 Thermal paper (3.1) without special protection or long-term storage requirements is suitable for short-term information recording.