

ICS 85-010
CCS Y 30



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

GB/T 12661-2008

Replacing GB/T 12661-1990

**Paper and board -- Determination of microbiological properties
-- Total bacterial count**

纸和纸板 菌落总数的测定

(English Translation)

Issued on: August 19, 2008

Implemented on: May 1, 2009

Issued by: Standardization Administration of China

Table of Contents

Foreword
1 Scope
2 Normative references
4 Reagents
5 Instruments

Foreword

This revised standard adopts ISO 8784-1:2005 Determination of "pulp, paper and paperboard microorganisms - Part 1. degradation of the fine based on Bacteria, yeast and fungi, the total number." this standard and ISO 8784-1:2005 main differences are as follows.

--- Clear scope This standard applies to most paper and board, especially with the food contact paper and board (Chapter 1 of this edition);

--- Range specified in the paper and cardboard and the internal surface of the total number of colonies measuring method (Chapter 1 of this edition);

--- Normative references to ISO 8784-1:2005 international standard referenced into with the corresponding national standards, canceled A reference to the relevant pulp standards (Chapter 2 of this edition);

--- The ISO 8784-1:2005 in Chapter 4, the culture temperature from 37 °C to 35 °C ± 2 °C, canceled the other fungi to be measured Demand (Chapter 3 of this edition);

--- Canceled ISO 8784-1:2005 5.1.1 and 5.1.2, an increase in Appendix A;

--- Increase in the content of the instrument (Chapter 5 of this edition);

--- Increased equipment and media sterilization method (Chapter 6 of this edition);

--- Modify the results of the calculation and presentation (Chapter 9 of this edition).

This standard and ISO 8784-1:2005 structure comparison are listed in Appendix B.

This standard and ISO 8784-1:2005 technical differences are listed in Appendix C.

This standard replaces GB/T 12661-1990 "Paper and board Determination of the total number of colonies." this standard and GB/T 12661-1990 compared to the main changes are as follows.

--- Increasing the foreword;

- Modify the scope, range clear This standard applies to most paper and board, especially with the food contact paper and paperboard (1990 Edition Chapter 1, Chapter 1 of this edition);
- Increasing the normative references (Chapter 2 of this edition);
- Increased principles (Chapter 3 of this edition);
- Modify the reagent requirements (Edition 1990, Chapter 6; Chapter 4 of this edition);
- Modify the instrument specifications (1990 edition Chapter 5; Chapter 5 of this edition);
- Modified samples and preparation (1990 edition, Chapter 8; Chapter 7 of this edition);
- Increase the contents of the report results (Chapter 9 of this edition);
- Modify the contents of the procedure, at $35\text{ }^{\circ}\text{C} \pm 2\text{ }^{\circ}\text{C}$ to $30\text{ }^{\circ}\text{C} \pm 1\text{ }^{\circ}\text{C}$ for 72h to train at 48h (1990 Edition the first edition chapter 8); Chapter 9;
- Increase the informative Appendix B and Appendix C.

Appendix A of this standard is a normative appendix, Appendix B, Appendix C is informative appendix.

The standard proposed by China National Light Industry Council.

This standard by the National Standardization Technical Committee of the paper industry.

This standard was drafted. Tianjin Institute of Light Industry Technology Paper, Pulp and Paper Research Institute of China.

1 Scope

This standard specifies the paper and cardboard and determination of internal surface of the total colonies.

This standard applies to most paper and board, especially with the food contact paper and paperboard.

2 Normative references

The following documents contain provisions which, through reference in this standard and become the standard terms. For dated references, subsequent Amendments (not including errata content) or revisions do not apply to this standard, however, encourage the parties to the agreement are based on research Whether the latest versions of these documents. For undated reference documents, the latest versions apply to this standard.

GB/T 450 and take samples to an aspect of paper and paperboard samples, positive and negative determination (GB/T 450-2008, ISO 186.

2002, MOD)

Principle 3

Paper or paperboard crushing suspension after dilution predetermined in a defined medium prepared plates. At $35\text{ }^{\circ}\text{C} \pm 2\text{ }^{\circ}\text{C}$ have Under oxygen atmosphere cultured 48h, press plates and the dilution factor to calculate the total number of selected colonies per gram sample.

4 Reagents

4.1

Ethanol. concentration of 75% (mass fraction).

4.2

media. nutrient agar, its composition, see Section A. Chapter 1. If instead of nutrient agar shall be stated in the test report.

4.3

Diluent. sterile saline.

5 Instruments

General laboratory instruments and

5.1

Balance. a sense of the amount of 0.1g.

5.2

Magnifier. Magnification 10 x or 15 x, to do with plate count.

5.3

plug. non-absorbent cotton or plug disposable.

5.4

conical flask. capacity 200mL, 500mL, and with a stopper (5.3).

5.5

Glass beads. diameter of 5mm.

5.6

incubator. the temperature can be controlled at $35\text{ }^{\circ}\text{C} \pm 1\text{ }^{\circ}\text{C}$.

5.7

pH or 6.4 to 8.0 meter precision pH test paper.

5.8

Autoclave. can operate under the conditions of 120 °C and 100kPa.

5.9

Oven. it can work at 165 °C ± 2 °C during 3h.

5.10

alcohol lamp.

5.11

knife or scissors (sterilization). used to cut paper or cardboard.

5.12

forceps (sterilized). for clamping a sample of paper or cardboard.

5.13

pipette or syringe. calibrated pipette 5mL or 5mL medical syringe. Before sterilization, the entire pipette tip big mouth Applications cotton plugged pipette or syringe into a metal box or brown paper bag sterilized.

5.14

dish. specifications for 70mm, 90mm (glass plate or single-use).