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

GB/T 464.1-1989

Replacing GB/T 464.1-1989; GB/T 464.2-1993

**Accelerated aging (dry heat treatment) of paper and board
(English Translation)**

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Foreword

This revised standard adopts ISO 5630-4. 1986 "Paper and board - Accelerated aging - Part 4. 120 °C or 150 °C dry heat." this standard and ISO 5630-4. 1986 compared to changes in the technical content include.

--- Increasing the corresponding provisions in ISO 5630-1. 105 °C dry heat treatment method specified in 1991, and the provisions of the applicable scope the paper conditions applicable;

--- Remove the temperature condition "120 °C or 150 °C" in the name;

--- Remove the ISO 5630-4. 1986 in the foreword and introduction;

--- Remove the ISO 5630-4. 1986 Chapter 1 Note;

--- The ISO 5630-4. 1986 ISO standards in normative references to documents referenced by the national standards;

--- Remove the ISO 5630-4. 1986 8.2 Processing time temperature and humidity;

--- Increase this standard results in Chapter 10 of FIG.

This standard replaces GB/T 464.1-1989 "Paper and cardboard dry heat accelerated aging method (105 ± 2 °C, 72h)" and GB/T 464.2-1993 "Paper and cardboard dry heat accelerated aging method (120 ± 2 °C or 150 ± 2 °C)".

This standard and GB /and GB/T 464.2-1993 compared to changes in the technical content of T 464.1-1989 include.

--- Remove the GB/T 464.1-1989 in Appendix A;

--- Than GB/T 464.2-1993 increased 105 °C processing conditions and application of the provisions of the paper in the scope of application conditions.

The Standard Appendix A, Appendix B are informative appendices.

The standard proposed by China National Light Industry Council.

The standard paper by the National Standardization Technical Committee (SAC/TC141) centralized.

This standard was drafted. China Pulp and Paper Research Institute.

1 Scope

This standard specifies the paper and paperboard at 105 °C, dry heat 120 °C, 150 °C under the accelerated aging method and heat treatment of materials General Test method.

Accelerated aging conditions specified in this standard of 105 °C apply to the general cultural paper and similar paper, speed of 120 °C or 150 °C Aging conditions apply to certain high-purity paper, electrical insulating paper.

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 to take a sample of paper and cardboard (GB/T 450-2002, eqv ISO 186:1994)

GB/T 10739 paper, paperboard and pulp sample processing and testing standard atmospheric conditions (GB/T 10739-2002, eqv ISO 187.

1990)

Principle 3

In a sealed incubator, the sample processing paper and cardboard by 120 °C 168h (Method A), or treated by 150 °C 24h (Method B), or Treated by 105 °C 72h (Method C), and then before and after sample treatment related changes in performance, durability and thus deduced paper about in conclusion.

Note: The three methods can not be equated, in particular paper specification shall specify the method used.

4 Instrument

4.1

thermostat. ACH shall not be less than 10 times, and allows the air temperature is maintained at 120 °C ± 2 °C (Method A), or 150 °C ± 2 °C (Method B), or 105 °C ± 2 °C

(Method C). Directly during the test, samples are neither light nor by the heat generating element Radiation, and the sample can be uniformly exposed to the incubator. The specimen should be placed away from the oven wall at least 100mm, and it can be every bit Incubator circulating air in contact after the operation, the oven should be restored to the working conditions within 15min.

4.2

Test equipment, appropriate standards or test methods should be consistent.

4.3

Pretreatment dryer or other means, to maintain the 10% to 35% relative humidity.

5 Sampling

Samples taken according to the provisions of GB/T 450's.

6 Prepare, samples

For each performance to be evaluated, shall prepare two samples according to the appropriate standards and methods.

Prevent glare sample.

Avoid taking samples with bare hand, should avoid excessive exposure to the chemical laboratory samples of the atmosphere.

Note: The first cut out of a larger sample, to be aging, then the provisions of the size of the cut sample.

7 Heat treatment method

Heat treatment should be done in the dark.