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NATIONAL STANDARD OF THE PEOPLE'S REPUBLIC OF CHINA

GB/T 24328.10-2020

Tissue paper and tissue products - Part 10: Determination of tensile strength of perforated lines and calculation of perforation efficiency

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Table of Contents

Foreword

GB/T 24328 "Toilet Paper and Its Products" is divided into the following 12 parts.

---Part 1.Terminology guidelines;

---Part 2.Determination of thickness, laminate thickness, apparent laminate tightness and bulk;

---Part 3.Determination of tensile strength, elongation at maximum force and tensile energy absorption;

---Part 4.Determination of wet tensile strength;

---Part 5.Quantitative determination;

---Part 6.Determination of water absorption time and water absorption capacity basket immersion method;

---Part 7.Determination of the burst resistance of the spherical shape;

---Part 8.Determination of optical properties, determination of brightness and color D65/10° (outdoor daylight conditions);

---Part 9.Determination of the burst resistance of the wet spherical shape;

---Part 10.Determination of the tensile strength of the punching line and calculation of the punching efficiency;

---Part 11.Determination of optical properties, determination of brightness and color C/2° (indoor daylight conditions);

--- Part 12.Determination of optical properties. Determination of opacity. Diffuse reflectance method.

This part is Part 10 of GB/T 24328.

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

This part uses the redrafting method to amend and adopt ISO 12625-12.2010 "Tissue

Paper and its products Part 12.Tensile strength of perforated line

Determination of the degree of perforation calculation."

Compared with ISO 12625-12.2010, this part has the following structural adjustments.

---Adjust the precision requirements of Chapter 12 of ISO 12625-12.2010 to Appendix A of this Part;

---Adjust Appendix A of ISO 12625-12.2010 to Appendix B of this Part;

---Adjust Appendix B in ISO 12625-12.2010 to Appendix C of this Part.

The technical differences between this part and ISO 12625-12.2010 and the reasons are as follows.

---The scope has been revised to meet the requirements of my country's standard compilation.

---Regarding normative reference documents, this section has made adjustments with technical differences to adapt to my country's technical conditions and adjustments.

The situation is collectively reflected in Chapter 2 "Normative Reference Documents", and the specific adjustments are as follows.

* Replace ISO 186 with GB/T 450 which is modified to adopt international standards;

* Replace ISO 187 with GB/T 10739, which is equivalent to the international standard;

* Replace ISO 1924-2 with GB/T 12914 which is modified to adopt international standards;

* Replace ISO 12625-1 with GB/T 24328.1 which is modified to adopt international standards;

* ISO 536 and ISO 7500-1 are deleted.

--- Deleted the tensile strength tester in 5.1 should be calibrated according to ISO 7500-1 to meet my country's technical conditions.

--- Deleted the cutting device in 5.3 should meet the requirements of ISO 536, this international standard does not apply to our country.

This section has made the following editorial changes.

---Modified the standard name.

Please note that certain contents of this document may involve patents. The issuing agency of this document is not responsible for identifying these patents.

This part was proposed by the China National Light Industry Council.

This part is under the jurisdiction of the National Paper Industry Standardization Technical Committee (SAC/TC141).

Drafting organizations of this section. China Pulp and Paper Research Institute Co., Ltd., Shaoneng Group Guangdong Oasis Ecological Technology Co., Ltd., Anhui Hongyi

Information Technology Co., Ltd., Shandong Zhongzhi Standardization Research Institute Co., Ltd.

1 Scope

This part of GB/T 24328 specifies the determination of the tensile strength of the punch line of toilet paper and its products and the calculation method of punch efficiency.

This section applies to toilet paper and its products with perforated lines (such as toilet paper rolls, roll paper towels, roll kitchen paper towels, roll toilet paper

Wait).

2 Normative references

The following documents are indispensable for the application of this document. For dated reference documents, only the dated version applies to this article

Pieces. For undated references, the latest version (including all amendments) applies to this document.

The collection of GB/T 450 paper and paperboard samples and the determination of the longitudinal and transverse directions, front and back sides of the samples (GB/T 450-2008, ISO 186.

2002, MOD)

GB/T 10739 Standard atmospheric conditions for handling and testing of paper, paperboard and pulp samples (GB/T 10739-2002, eqvISO 187.

1990)

GB/T 12914 Determination of Tensile Strength of Paper and Paperboard Constant Speed Tensile Method (20mm/min) (GB/T 12914-2018,

ISO 1924-2.2008, MOD)

GB/T 24328.1 Toilet paper and its products Part 1.Terminology guidelines (GB/T 24328.1-2020, ISO 12625-1.

2019, MOD)

3 Terms and definitions

The following terms and definitions defined in GB/T 24328.1 apply to this document.

3.1

Tensile strength

Under the conditions specified in the standard test method, the maximum tension that a sample of unit width can withstand before it breaks.

3.2

Perforationefficiency

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The difference between the tensile strength of the unperforated part and the tensile strength of the perforated part of the same sample is divided by the tensile strength of the unperforated part.

Note 1.The punching efficiency is expressed as a percentage.

Note 2.The higher the punching efficiency, the easier the paper is to separate.

3.3

Tiebar

The uncut area in the punch line.