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

GB/T 24328.7-2020

Replacing GB/T 24328.7-2009

**Tissue paper and tissue products - Part 7: Determination of ball
burst strength**

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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 7 of GB/T 24328.

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

This part replaces GB/T 24328.7-2009 "Toilet paper and its products Part 7.Determination of spherical bursting strength", and

Compared with GB/T 24328.7-2009, the main technical changes except for editorial changes are as follows.

---Adjusted the requirements of the clamping system (see 5.2.3, 5.1 of the.2009 edition);

--- Change the inner diameter of the clamping ring to (50.0 +/- 0.2) mm (see 5.2, 5.1 in the.2009 edition);

---Added the requirements for the orientation of the sample during testing (see Chapter 9, Chapter 8 of the.2009 edition);

--- Adjust the precision content to an informative appendix (see Appendix A, Chapter 11 of the.2009 edition).

This part uses the redrafting law to amend and adopt ISO 12625-9.2015 "Toilet paper and its products Part 9.Spherical burst resistance Determination".

The technical differences between this part and ISO 12625-9.2015 and the reasons are as follows.

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

* Replace ISO 12625-6 with GB/T 24328.5 modified to adopt international standards;

* ISO 7500-1 is deleted to adapt to the technical conditions of our country.

---The clamping ring with an inner diameter of 89mm was deleted to adapt to the technical conditions of our country.

---According to the actual situation of our country's instruments, the measurement load accuracy of the force measurement system is changed from +/-0.1N to +/-0.01N (see 5.4).

This section also made the following editorial changes.

---In order to be consistent with the existing standard series, the standard name is revised

to "Toilet paper and its products Part 7.Spherical burst resistance Determination";

--- Deleted Appendix B in ISO 12625-9.2015 to adapt to my country's technical conditions.

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., Hangzhou Pinxiang Technology Co., Ltd., China Light (Jinjiang) Hygiene Products Research Institute

Research Co., Ltd., Standardization Committee of China Paper Association.

1 Scope

This part of GB/T 24328 specifies the method for determining the resistance of toilet paper and its products to mechanical penetration (spherical bursting strength).

Note. Generally, two clamping devices can be used, the inner diameter of the clamping ring is 50mm and 89mm respectively. This part should use a clamping device with an inner diameter of 50mm,

It is consistent with GB/T 24328.9.The clamping device with an inner diameter of 89mm can be equipped with a converter to convert the inner diameter to 50mm.

This section applies to toilet paper and its products.

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

2019, MOD)

GB/T 24328.5 Toilet paper and its products Part 5.Quantitative determination (GB/T 24328.5-2009, ISO 12625-6.

2005, MOD)

3 Terms and definitions

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

3.1

Quantitative grammage

The quality of toilet paper and its products per unit area measured according to GB/T 24328.5.

3.2

Spherical bursting strength balburststrength

Under the test conditions, the maximum force that the surface of the toilet paper and its product samples can withstand in the vertical direction.

3.3

Spherical bursting index balburstindex

Spherical burst resistance divided by quantitative.

4 Principle

The specimen is firmly clamped by two concentric rings, and a highly polished stainless steel ball penetrates the specimen in the vertical direction at a constant rate.

The maximum force that such a surface can withstand in the vertical direction is the spherical burst resistance.