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

GB/T 23330-2019

Replacing GB/T 23330-2009

Clothing - Requirements for rain resistance

服装 防雨性能要求

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Foreword

This standard was drafted in accordance with the rules given in GB/T 1.1-2009. This standard replaces GB/T 23330-2009 "clothing rain performance requirements", compared with GB/T 23330-2009, the main technical changes The following is as follows:

- Revised scope (see Chapter 1, Chapter 1 of the.2009 edition);
- Modifications supplemented with normative references (see Chapter 2, Chapter 2 of the.2009 edition);
- Revised the definition of the liner (see 3.4, 3.4 of the.2009 edition);
- Modified the name of the lining (see 3.6,.2009 edition 3.6);
- Revised the water pressure rise rate in the water resistance test; increased the test water temperature (see 5.1.1, 5.1.1 of the.2009 edition);
- Revised the requirements for water washing and dry cleaning in the water resistance test (see 5.1.3.2, 5.1.3.2 of the.2009 edition);
- Revised the wear pretreatment requirements in the water resistance test (see 5.1.3.3, 5.1.3.3 of the.2009 edition);
- Modified the tensile strength test method (see 5.3,.2009 edition 5.3);
- Increased the rule against the width of the tear test specimen (see 5.4);

1 Scope

China's national requirements for the rain resistance of clothing. It specifies the terms and definitions, the requirements, the test methods and the assessment of the rain resistance of garments, and it applies to clothing sold with a rain protection claim. The distinction this

standard rests on is between a fabric and a garment. A fabric can be tested for water penetration in a laboratory and given a number, and that number is what most rainwear is sold on - but a garment made from a waterproof fabric is not necessarily waterproof, because water does not go through the fabric, it goes through the holes made in it. Every seam is a line of needle punctures; every zip is a channel; every pocket, vent, cuff and hem is an opening; and the shoulders and the upper back, where the fabric is stretched over the body and rain falls hardest, are where a garment leaks first. So the standard specifies the garment. It grades rain resistance into levels, and for each level it sets what the fabric must achieve, what the seams must achieve - taped, welded or otherwise sealed, and tested as seams rather than as fabric - and how the closures and openings must be constructed. The test is on the made garment: a specimen or a whole garment on a mannequin under a defined spray of defined intensity and duration, examined afterwards for penetration at the places where penetration actually happens. And it distinguishes water resistance, which sheds a shower, from waterproofness, which survives sustained rain, since selling one as the other is the common complaint about the category. Issued on 18 October 2019 and in force since 1 May 2020, it replaces GB/T 23330-2009.

This standard specifies the terms and definitions, requirements, inspection methods, type specifications and rainproof signs of rainproof clothing. This standard applies to textile fabrics as the main fabric, used to cover precipitation (such as rainfall, snow), fog, ground moisture and rain clothing. This standard does not apply to rainproof clothing for infants and children aged 14 and under.

2 Normative references

The following documents are indispensable for the application of this document. For dated references, only dated versions apply to this article. Pieces. For undated references, the latest edition (including all amendments) applies to this document.

GB/T 1335.1 clothing number type men

GB/T 1335.2 clothing number type women

GB/T 1690 vulcanized rubber or thermoplastic rubber liquid test method

GB/T 3917.2 Textile fabrics - Tearing properties - Part 2. Determination of tear strength

GB/T 4744 Textiles - Determination of water resistance - Hydrostatic pressure method

GB/T 8629-2017 Home washing and drying procedures for textile testing

GB/T 11048 Determination of thermal resistance and moisture resistance under steady state conditions of textile physiological comfort (evaporation hot plate method)

GB/T 12586-2003 Determination of flexing resistance of rubber or plastic coated fabrics

GB/T 13773.2 Textiles and their products - Joints - Tensile properties - Part 2.

Determination of seam strength

GB/T 15557 clothing terminology

GB/T 19981.2-2014 Professional maintenance, dry cleaning and wet cleaning of textile fabrics and garments - Part 2. Use of tetrachloroethylene Procedure for performance testing during dry cleaning and ironing

GB/T 20097 protective clothing general requirements Textiles - Determination of abrasion resistance of textiles - Part 1 . Martindale abrasion tester Textiles - Determination of abrasion resistance of textiles - Part 2. Determination of breakage of specimens

GB/T 21294 Inspection method for physical and chemical properties of garments

3 Terms and definitions

The following terms and definitions as defined in GB/T 15557 apply to this document.

3.1 Wet resistance water-vapourresistance R_{et} The ratio of the water vapor pressure difference on both sides of the sample to the evaporation heat flow rate per unit area passing through the sample. Evaporative heat flow may be caused by diffusion and One or more forms of convection are passed.

Note 1. The moisture resistance R_{et} is in squares per square watt ($m^2 \cdot Pa/W$), which means that the textile is under a stable water vapor pressure gradient condition. The evaporating heat flow rate of a given area.