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

GB/T 40270-2021

**Textiles - General technical requirements based on consumer
experience**

纺织品 基于消费者体验的通用技术要求

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1 Scope

China's national general technical requirements for textiles based on consumer experience. It specifies the terms and definitions and the requirements. The framing is what makes it unusual. Most textile standards specify properties that the industry measures - tensile strength, colour fastness, dimensional stability - and each is chosen because it can be tested reproducibly. This one starts from the other end, with what a purchaser actually notices and complains about: that a garment shrank, that the colour came off on something else, that it pilled after three wearings, that a seam opened, that it felt harsh, that it smelled. Some of those map onto existing tests and some do not, and the ones that do not are precisely where standards have historically been weakest. Building the requirements around the experience rather than around the available measurements is an attempt to close the gap between a garment that passes and a garment that satisfies.

This Standard specifies general technical requirements based on consumer experience when using textile products. This Standard applies to end-use textile products for consumption and household products directly to consumers.

2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

GB/T 250, Textiles - Tests for colour fastness - Grey scale for assessing change in colour

GB/T 251, Textiles - Tests for colour fastness - Grey scale for assessing staining

GB/T 4802.2, Textiles - Determination of fabric propensity to surface fuzzing and to pilling - Part 2: Modified Martindale method

GB/T 4802.3, Textiles - Determination of fabric propensity to surface fuzzing and to pilling - Part 3: Pilling box method

GB/T 6529, Textiles - Standard atmospheres for conditioning and testing

GB/T 6682, Water for analytical laboratory use - Specification and test methods

GB/T 8629-2017, Textiles - Domestic washing and drying procedures for textile testing

GB/T 12490-2014, Textiles - Tests for colour fastness - Colour fastness to domestic and commercial laundering

GB/T 12704.1, Textiles - Test method for water-vapor transmission of fabrics - Part 1: Desiccant method

GB/T 13772.2, Textiles - Determination of the Slippage Resistance of Yarns at a Seam in Woven Fabrics - Part 2: Fixed Load Method

GB/T 13773.1, Textiles - Seam tensile properties of fabrics and made-up textile articles - Part 1: Determination of maximum force to seam rupture using the strip method

GB 18401, National general safety technical code for textile products

GB/T 19976, Textiles - Determination of bursting strength - Steel ball method

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

3.1 consumer experience consumers' feelings and perceptions when using the product

3.2 characteristic of visual perception product quality information characteristics perceived by human visual system

3.3 characteristic of tactile perception product quality information characteristics perceived by human tactile system

5.4 Determination of seam performance of bag cloth. Cut 2 specimens from each sample (take the bottom seam of the pocket, if there is no bottom seam, take the side seam). The length of the specimen shall be parallel to the warp or weft (longitudinal or horizontal) direction of the bag cloth as much as possible. For woven bags, perform according to the method described in GB/T 13773.1. For knitted pockets, perform method B described in FZ/T 01031-2016. Stop the test when the tensile force reaches 150N. Observe the condition of the specimen. During the test, if the specimen has seam breakage, fabric breakage, stop the test.

5.5 The specimen preparation of the yarn slippage at the seam of the bag cloth is in accordance with the provisions of GB/T 13773.1. Cut 2 specimens from each sample (take the bottom seam of the pocket; if there is no bottom seam, take the side seam). The length of the specimen shall be parallel to the warp or weft direction of the bag cloth as much as possible. The determination procedure of yarn slippage at the seam of bag cloth shall be implemented according to GB/T 13772.2. The constant load value is 120N. Take the

average of the two specimens as the test result.

5.6 The bursting strength of the sock head shall be determined according to the method described in GB/T 19976. The steel ball diameter adopts (25 ± 0.02) mm. Cut out about 60mm of the toe of the sock from the sample as a specimen. Clamp it in the ring holder. Ensure that the toe is tension-free and in the center of the ring holder.

5.7 Determination of staining degree of lotion. Carry out sample preparation and washing according to method A1S described in GB/T 12490-2014. The detergent adopts ECE phosphorous detergent. After washing, pour the filtered lotion and the lotion of the unwashed specimen into a 25mm diameter colorimetric tube. Under natural light conditions, place the colorimetric tube in front of white paper that does not contain optical brightener. Evaluate the staining of the lotion according to GB/T 251 within 10min when the lotion is poured into the colorimetric tube.

5.8 The determination of light yellowing resistance is carried out according to the method described in GB/T 30669. Irradiation time is 6h.