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

GB/T 9996-2001

Replacing GB/T 9996.1-2008

**Inspection of appearance quality of yarns made of cotton,
man-made fibres and their blends wound on blackboard - Part
1: Comprehensive assessment
(English Translation)**

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Foreword

This document complies with the provisions of GB/T 1.1-2020 "Standardization Work Guidelines Part 1: Structure and Drafting Rules of Standardization Documents".

Drafting.

This document is Part 1 of GB/T 9996, "Blackboard Inspection Method for Appearance Quality of Pure and Blended Cotton and Chemical Fiber Yarns".

The following sections have been released.

---Part 1: Comprehensive Assessment Method;

---Part 2: Separate Assessment Method this document replaces GB/T 9996.1-2008 "Blackboard Inspection Methods for Appearance Quality of Pure and Blended Cotton and Chemical Fiber Yarns - Part 1: General..." Compared with GB/T 9996.1-2008, the main technical changes in the "Assessment Method" are as follows, apart from structural adjustments and editorial modifications.

---Added terms and definitions for obvious color knots and impurities (see 3.7, 3.8);

---The requirements for the testing room, grading table, blackboard, and blackboard shaker have been revised (see 5.1, 5.2, 5.3, 5.4; 4.1, 4.2, 4.3 in the 2008 edition).

---The requirements for standard sample images have been changed (see 6.2, 6.3, 6.4, 6.5; 5.2, 5.3, 5.5 in the 2008 version);

---The width of the yarn slab being shaken during the inspection process has been increased (see 8.1);

---Added representation of test results (see Chapter 9);

---The contents of the test report have been changed (see Chapter 10, Chapter 9 of the 2008 edition).

Please note that some content in this document may involve patents. The issuing organization of this document assumes no responsibility for identifying patents.

This document was proposed by the China National Textile and Apparel Council.

This document is under the jurisdiction of the National Technical Committee on Standardization of Textiles (SAC/TC209).

Introduction

The blackboard inspection method for yarn appearance quality is one of the core inspection standards in the cotton textile industry, and it stands out for its ease of operation, intuitiveness, and high efficiency.

Appearance quality assessment has long been a reliable method for evaluating yarn appearance quality, and is widely used in the production control and quality management of pure cotton and chemical fiber yarns, as well as blended yarns.

This method covers the entire process of quantity inspection and trade. It is not only an important basis for enterprise production acceptance, trade transactions, and arbitration inspection, but also for "AI" (AI-enabled) processes.

This has laid a solid theoretical foundation for the practical application of "detection" technology in the field of yarn quality inspection. To meet the inspection needs in different scenarios, GB/T 9996, "Inspection Method for Appearance Quality of Pure and Blended Cotton and Chemical Fiber Yarns (Blackboard Method)," divides the inspection methods into comprehensive evaluation method and separate evaluation method.

The two parts of the law provide comprehensive support for the standardization of industry inspections.

---Part 1: Comprehensive Evaluation Method. The purpose is to comprehensively assess the evenness of yarn sample and the presence of neps and other impurities.

It can simply and intuitively reflect the overall appearance quality level of the yarn, and is suitable for scenarios where the overall quality of the yarn needs to be quickly controlled.

---Part 2: Separate Evaluation Method. The purpose is to classify and refine key quality indicators such as yarn evenness and cotton knots/impurities.

Accurate judgment, specifically addressing the inspection needs of multi-variety, small-batch production scenarios, providing efficient and precise quality judgment for such scenarios.

Determine the tool.

Blackboard for appearance quality of pure and blended cotton and chemical fiber yarns Test Methods Part 1: Comprehensive Evaluation Method

1 Scope

This document describes a comparison between the appearance quality of the yarn, such as evenness of yarn strands and neps, as displayed on the blackboard, and a standard sample photo of yarn appearance quality.

A comprehensive evaluation and testing method.

This document applies to the comprehensive evaluation of the appearance quality of blackboards made of pure cotton, chemical fiber, or blended yarns.

This document has no normative references.

3 Terms and Definitions

The following terms and definitions apply to this document.

yarn appearance

This is a visual observation method used to obtain an intuitive effect from observing a yarn sample wound on a blackboard according to specified requirements.

Thick place

The projected width of the yarn segment (hereinafter referred to as diameter) is thicker (increased) than the normal yarn diameter, and the degree of thickening is perceptible to the inspector.

Recognizer.

Details thinplace

The diameter of the yarn segment is smaller than the normal diameter, to the extent that it can be discerned by the inspector's eyesight.

Shadow dul

The arrangement of numerous finer yarns creates a darker, blocky surface on the board.

cotton knots

Undecomposed granules formed by fiber entanglement.

large cotton knots

The cotton knots are three times or more in diameter than the original yarn.

Visible colored neps Large knots on the yarn surface are formed by the aggregation and twisting of colored and/or uncolored fibers, and their color is visible.

impurities traces

Yarn contains seed fragments, broken leaves, broken branches, cottonseed husks, hemp, grass, sawdust, and foreign fibers.