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GB/T 4893.8-2023

Test of surface coatings of furniture - Part 8: Determination of resistance to abrasion

家具表面理化性能试验 第8部分：耐磨性测定法

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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 8 of GB/T 4893 "Physical and Chemical Properties Testing of Furniture Surface Paint Films". GB/T 4893 has released the following part.

1.Determination of resistance to cold liquids;

2.Determination of heat and moisture resistance;

3.Determination of dry heat resistance;

4.Adhesion cross-cutting determination method;

5.Thickness determination method;

6.Gloss determination method;

7.Determination of resistance to hot and cold temperature difference;

8.Determination of wear resistance;

9.Impact resistance determination method. This document replaces GB/T 4893.8-2013 "Physical and Chemical Properties Testing of Furniture Surface Paint Films Part

8.Determination of Wear Resistance" and is consistent with Compared with GB/T 4893.8-2013, in addition to structural adjustments and editorial changes, the main technical changes are as follows:

---Changed the scope of the standard (see Chapter 1, Chapter 1 of the.2013 edition);

---Added description of laminates (see Chapter 1);

1 Scope

GB/T 4893.8-2023 is Part 8 of the Chinese series on the physical and chemical testing of furniture surfaces, and determines resistance to abrasion. Abrasion is what actually ends the life of a table or a cabinet door: the finish wears through where hands and objects pass, long before anything structural fails, and the number of revolutions a surface survives on an abrasion tester is the figure by which coatings and laminates are compared and specified. The standard sets the principle, the instruments and materials - the cleaning cloth, the calibration plate, the abrasive strip, the abrasion tester, the balance, the conditioning chamber and the diffuse light source - the preparation and preconditioning of the test surface, the test procedure, the assessment of the endpoint and the test report. It took effect on 1 April 2024.

This document describes a method for determining the abrasion resistance of foil veneers, laminates, impregnated film veneers, stains and clear varnish surfaces.

Note. Laminates include thermosetting resin-impregnated paper, high-pressure decorative laminates (HPL) and other sheets. The tests in this document can be carried out on unused parts of finished furniture, or on the same materials and surface decoration techniques as the furniture. Conduct the test on a test sample whose size meets the test requirements.

2 Normative reference documents

The contents of the following documents constitute essential provisions of this document through normative references in the text. Among them, the dated quotations For undated referenced documents, only the version corresponding to that date applies to this document; for undated referenced documents, the latest version (including all amendments) applies to this document.

GB/T 231.1 Brinell hardness test of metallic materials Part

3 Terms and definitions

The following terms and definitions apply to this document.

3.1 test surface testsurface The surface portion of the test specimen.

3.2 Test sample testpanel A test piece with a test surface.

Note. The test sample can be cut from the furniture, or an independent sample made in the same way as the furniture.

3.3 testarea Part of the test surface under the grinding wheel wrapped with a gauze strip (5.3).

3.4 color rendering index colorrenderingindex Ra A unitless number that specifies the relationship between the color of an object illuminated by a light source and the color of a reference light source.

4 Principles

This test simulates the wear resistance of the furniture surface being tested. The test uses a pair of grinding wheels wrapped with abrasive cloth strips to rotate in counter-rotation under load.