



BSI Standards Publication

Furniture — Tests for surface finishes

Part 6: Assessment of resistance to scratching

National foreword

This British Standard is the UK implementation of ISO 4211-6:2025.

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A list of organizations represented on this committee can be obtained on request to its committee manager.

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**Furniture — Tests for surface
finishes —**

**Part 6:
Assessment of resistance to
scratching**

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Foreword

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The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular, the different approval criteria needed for the different types of ISO document should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

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This document was prepared by Technical Committee ISO/TC 136, *Furniture*.

A list of all parts in the ISO 4211 series can be found on the ISO website.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

Furniture — Tests for surface finishes —

Part 6: Assessment of resistance to scratching

1 Scope

This document specifies two methods for the assessment of surface resistance to different kinds of visible scratches.

It is applicable to the rigid surfaces of all finished products, regardless of their material.

It does not apply to finishes on leather and fabrics.

Method A is suitable for all types of surface coatings and coverings except for melamine faced boards (in accordance with EN 14322) and HPL (in accordance with EN 438-1). It simulates measurable penetrating and/or deforming scratches.

Method B is suitable for all types of surfaces. It simulates first visible traces (e.g. scratches, marks) that can also be a change in the gloss.

The test is intended to be carried out on a part of finished furniture. It can, however, be carried out on test panels of the same material, finished in an identical manner to the finished product, and of a size sufficient to meet the requirements of the test.

The test is carried out on unused surfaces without any defects or damages.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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.

ISO 1518-1, *Paints and varnishes — Determination of scratch resistance — Part 1: Constant-loading method*

3 Terms and definitions

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

ISO and IEC maintain terminology databases for use in standardization at the following addresses:

- ISO Online browsing platform: available at <https://www.iso.org/obp>
- IEC Electropedia: available at <https://www.electropedia.org/>

3.1

test surface

part of the *test panel* (3.2)

3.2

test panel

panel including the test *surface* (3.1)

Note 1 to entry: The panel may be cut from a finished item of furniture or it may be a separate panel produced in the same manner as the finished item of furniture.

3.3

test area

part of the test *surface* (3.1) under the equipment, where the measurement is carried out

3.4

scratching tip

needle with a point of defined geometry

Note 1 to entry: See 4.2.2 for Method A.

Note 2 to entry: See 5.2.1.5 for Method B.

3.5

scratching trace

<Method A> visible and measurable scratch on the tested surface, which is produced under the specified load of the *scratching tip* (3.4)

Note 1 to entry: The shapes of the traces' edges can be different depending on the substrate and coating type as shown in Table 2.

3.6

scratching trace

<Method B> first visible traces on the tested surface (e.g. scratches, marks), which may also be a change in the gloss

3.7

scratching resistance

<Method A> minimum load applied to the *scratching tip* (3.4), which produces a measurable trace of the width (*W*) of $\geq 0,30$ mm

Note 1 to entry: It is expressed in N.

3.8

scratching resistance

<Method B> minimum load applied to the *scratching tip* (3.4), which produces a continuous visible trace in at least six of eight slots of the template

Note 1 to entry: It is expressed in N.

3.9

preliminary assessment of scratching resistance

<Method A> assessment of the minimum load causing the specified width of the scratch on the *test surface* (3.1)

3.10

intermediate assessment of scratching resistance

<Method A> mean value of preliminary assessments of the *test surface* (3.1)

3.11

final result of scratching resistance

<Method A> mean value of intermediate assessments of three *test surfaces* (3.1)

Note 1 to entry: See Figure A.2.