



BSI Standards Publication

Furniture — Assessment of the surface resistance to microscratching

National foreword

This Published Document is the UK implementation of CEN/TS 16611:2016. It supersedes PD CEN/TS 16611:2014 which is withdrawn.

The UK participation in its preparation was entrusted to Technical Committee FW/0/1, Common Test Methods for Furniture.

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

This publication does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

© The British Standards Institution 2016. Published by BSI Standards Limited 2016

ISBN 978 0 580 91179 8

ICS 97.140

Compliance with a British Standard cannot confer immunity from legal obligations.

This Published Document was published under the authority of the Standards Policy and Strategy Committee on 31 March 2016.

Amendments issued since publication

Date	Text affected
------	---------------

TECHNICAL SPECIFICATION
SPÉCIFICATION TECHNIQUE
TECHNISCHE SPEZIFIKATION

CEN/TS 16611

March 2016

ICS 97.140

Supersedes CEN/TS 16611:2014

English Version

**Furniture - Assessment of the surface resistance to
microscratching**

Ameublement - Évaluation de la résistance des
surfaces aux micro-rayures

Möbel - Bestimmung der Mikrokratzbeständigkeit von
Möbeloberflächen

This Technical Specification (CEN/TS) was approved by CEN on 18 January 2016 for provisional application.

The period of validity of this CEN/TS is limited initially to three years. After two years the members of CEN will be requested to submit their comments, particularly on the question whether the CEN/TS can be converted into a European Standard.

CEN members are required to announce the existence of this CEN/TS in the same way as for an EN and to make the CEN/TS available promptly at national level in an appropriate form. It is permissible to keep conflicting national standards in force (in parallel to the CEN/TS) until the final decision about the possible conversion of the CEN/TS into an EN is reached.

CEN members are the national standards bodies of Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and United Kingdom.



EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

CEN-CENELEC Management Centre: Avenue Marnix 17, B-1000 Brussels

Contents		Page
European foreword		3
1	Scope	4
2	Normative references	4
3	Terms and definitions	4
4	Principle	5
5	Apparatus and materials	5
5.1	Martindale tester.....	5
5.2	Holder for scrub material.....	5
5.3	Diffuse light source.....	5
5.4	Reflectometer.....	5
5.5	Positioning device.....	6
5.6	Scrub materials.....	6
5.7	Double-sided tape.....	6
5.8	Cleaning cloth.....	7
5.9	Reference black high gloss HPL.....	7
6	Assembly and maintenance of the Martindale tester	7
7	Preparation and conditioning	7
7.1	Conditioning.....	7
7.2	Test surface.....	7
8	Test procedure	7
8.1	General.....	7
8.2	Testing.....	8
8.2.1	Procedure A.....	8
8.2.2	Procedure B.....	8
9	Test report	9
Annex A (normative) Method for checking the Lissajous figure		10
Annex B (normative) Classification of the image after scratching according to procedure B		11
Bibliography		13

European foreword

This document (CEN/TS 16611:2016) has been prepared by Technical Committee CEN/TC 207 "Furniture", the secretariat of which is held by UNI.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN [and/or CENELEC] shall not be held responsible for identifying any or all such patent rights.

This document supersedes CEN/TS 16611:2014.

Compared to CEN/TS 16611:2014, the following modification has been made:

— in 8.2.2.1 "2 or 3" is replaced by "3 or 4".

According to the CEN-CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this Technical Specification: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

1 Scope

This Technical Specification specifies a method for the assessment of the surface resistance to microscratching and relates to rigid surfaces of all finished products regardless of materials.

Method A is suitable for all types of surface coatings and coverings except for lacquers with pearly or metallic effects.

Method B is suitable for all types of surface.

It does not apply to finishes on leather and fabrics.

The test is intended to be carried out on a part of finished furniture, but can 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.

It is essential that the test is carried out on unused surfaces.

2 Normative references

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

EN ISO 2813, *Paints and varnishes - Determination of gloss value at 20°, 60° and 85° (ISO 2813)*

EN ISO 12945-2, *Textiles - Determination of fabric propensity to surface fuzzing and to pilling - Part 2: Modified Martindale method (ISO 12945-2)*

EN ISO 12947-1, *Textiles - Determination of the abrasion resistance of fabrics by the Martindale method - Part 1: Martindale abrasion testing apparatus (ISO 12947-1)*

3 Terms and definitions

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

3.1

test surface

part of the test panel

3.2

test panel

panel including the test surface

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

3.3

test area

part of the test surface effected by the scrub material (5.6)

3.4

1 rev

one revolution of the two outer drives of the Martindale tester