



SLOVENSKI STANDARD
SIST EN 13126-1:2006

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BUXca Yý U
SIST-TS CEN/TS 13126-1:2005

**Stavbno okovje – Zahteve in preskusne metode za okna in zastekljena vrata – 1.
del: Zahteve, skupne vsem vrstam pritrjevalnih sistemov**

Building hardware - Requirements and test methods for windows and doors height
windows - Part 1: Requirements common to all types of hardware

Baubeschläge - Beschläge für Fenster und Fenstertüren - Anforderungen und
Prüfverfahren - Teil 1: Gemeinsame Anforderungen an alle Arten von Beschlägen

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Quincaillerie pour le bâtiment - Exigences et méthodes d'essai des ferrures de fenetres
et portes-fenetres - Partie 1 : Exigences communes a tous types de ferrures

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Building hardware - Requirements and test methods for windows and doors height windows - Part 1: Requirements common to all types of hardware

Quincaillerie pour le bâtiment - Exigences et méthodes d'essai des ferrures de fenêtres et portes-fenêtres - Partie 1 : Exigences communes à tous types de ferrures

Baubeschläge - Beschläge für Fenster und Fenstertüren - Anforderungen und Prüfverfahren - Teil 1: Gemeinsame Anforderungen an alle Arten von Beschlägen

This European Standard was approved by CEN on 28 December 2005.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the Central Secretariat or to any CEN member.

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EN 13126-1:2006 (E)

Foreword

This European Standard (EN 13126-1:2006) has been prepared by Technical Committee CEN/TC 33 "Doors, windows, shutters, building hardware and curtain walling", the secretariat of which is held by AFNOR.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by August 2006, and conflicting national standards shall be withdrawn at the latest by August 2006.

This European Standard supersedes CEN/TS 13126-1:2004.

A full contribution to the preparation of this European Standard has been made by the European manufacturers' organization "ARGE" and national standards bodies.

This European Standard is one of a series of European Standards dedicated to building hardware products. It is divided into seventeen parts, the first part being common to the parts 2 until 17, incorporating all types of hardware for windows and balcony doors.

Informative Annex A lists the titles of all parts of this European Standard and refers to their different window opening-type applications.

Where appropriate additional normative and informative annexes are included in the respective part.

The performance tests incorporated in this European Standard are considered to be reproducible and as such will provide a consistent and objective assessment of the performance of these products throughout CEN Member States.

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

Introduction

EN 13126 is a multipart product standard which enables the testing of hardware components or sets. The components or sets are tested on a standard test frame independently of the windows to which they should be fitted. The standard test frame is intended to eliminate any test-result inconsistencies that may arise through the variability between different constructions of windows.

Throughout this European Standard all references to windows means both windows and balcony doors where appropriate.

This European Standard applies only to hardware that connects a movable sash to its fixed frame or controls the opening and closing of the movable sash. It does not take fixing devices into account that are used to assemble or install a fixed window or permanently fix a complete window into a building structure.

Where possible, test methods have been unified to accommodate a wide range of window opening-types and hardware. In particular the following are unified for movable sashes:

- a) size of sash;
- b) mass of sash;
- c) frequency and total number of test cycles;
- d) range of operations during each test cycle.

This European Standard excludes hardware for use on both doors and windows (single axis hinges and door bolts) because requirements for these products are specified in other standards.

NOTE The single complete standard consists of the combination of part 1 together with one of parts 2 to 17.

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1 Scope

This European Standard specifies performance requirements for the strength and durability of hardware for the operation of movable sashes of windows and balcony doors including requirements and test methods common to all hardware.

This European Standard is applicable to the hardware suitable for windows and balcony doors in Table 1, whatever the material used for the construction of the window.

Table 1 — Window opening-types

Window opening-type	Description Description refers to EN 12519	Number of Figure in Annex B
A	Side-hung window inward opening <i>single (and double) side-hung casement, opening inwards</i>	B.1
B	Side-hung window outward opening <i>single (and double) side-hung casement, opening outwards</i>	B.1
C	Bottom-hung window inward opening and outward opening <i>bottom-hung casement, opening inwards or outwards</i>	B.2
D	Top-hung window inward opening and outward opening <i>top-hung casement, opening inwards or outwards</i>	B.2
E	Tilt&Turn, Tilt-First <i>tilt and turn windows</i>	B.3
F	Horizontal pivot window <i>horizontal pivot casement, centre or off-centre</i>	B.4
G	Vertical pivot window <i>vertical pivot casement, centre or off-centre</i>	B.4
H	Projecting top-hung inward and outward opening window <i>sliding projecting, top-hung casement, opening inwards or outwards</i>	B.5
J	Projecting bottom-hung inward and outward opening window <i>this type is not separately described in EN 12519</i>	B.5
K	Projecting reversible top-hung window <i>this type is not separately described in EN 12519</i>	B.6
L	Projecting reversible side-hung window <i>sliding projecting, side-hung casement, open out</i>	B.7
M	Vertical sliding sash <i>vertical sliding sash</i>	B.8
N	Horizontal sliding sash <i>horizontal sliding sash</i>	B.9
P	Lifting sliding sash <i>lifting sliding sash</i>	B.10
Q	Folding window (centre pivot) <i>this type is not separately described in EN 12519</i>	B.11
R	Folding outward opening window (corner pivot) <i>sliding folding window</i>	B.12
S	Folding inward opening window (corner pivot) <i>sliding folding window</i>	B.12
T	Tilting sliding sash <i>double tilting sliding sash</i>	B.13
U	Top-hung inward opening window multi-light <i>this type is not separately described in EN 12519</i>	B.14
V	Bottom-hung inward opening window multi-light <i>this type is not separately described in EN 12519</i>	B.14
W	Horizontal balanced window <i>this type is not separately described in EN 12519</i>	B.15

This European Standard does not apply to the following:

Fusible links, hardware for lifting side-hung windows, hardware for windows that remain parallel to their own plane and move perpendicular to it on pantograph type gear, fixing devices that are used to assemble or install a fixed window, devices that are used for the permanent fixing of a complete window into a building structure, mechanisms for the pneumatic or hydraulic remote operation of windows; also single axis hinges (other than those, which provide a pivot-function for windows) and dead bolts suitable for both door and window sashes, as covered in EN 1935 and EN 12051 respectively.

NOTE 1 Should fire/smoke classifications be required, reference should be made to the respective standards mentioned in 5.5.

NOTE 2 Should burglar resistance classifications be required, reference should be made to ENV 1627, ENV 1628, ENV 1629 and ENV 1630.

2 Normative references

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

EN 1634-1, *Fire resistance tests for door and shutter assemblies — Part 1: Fire doors and shutters*

EN 1634-3, *Fire resistance tests for door and shutter assemblies — Part 3: Smoke control doors and shutters*

EN 1670, *Building hardware — Corrosion resistance — Requirements and test methods*

EN 12519:2004, *Windows and pedestrian doors — Terminology*

CEN/TS 13126-2, *Building hardware, fittings for windows and door height windows — Requirements and test methods — Part 2: Casement fastener handles*

CEN/TS 13126-3, *Building hardware, fittings for windows and door height windows — Requirements and test methods — Part 3: Manoeuvring fittings for espagnolette bolts/sliding button*

CEN/TS 13126-4, *Building hardware, fittings for windows and door height windows — Requirements and test methods — Part 4: Espagnolette bolts*

CEN/TS 13126-5, *Building hardware, fittings for windows and door height windows — Requirements and test methods — Part 5: Devices that restrict the opening of windows*

CEN/TS 13126-6, *Building hardware, fittings for windows and door height windows — Requirements and test methods — Part 6: Variable geometry stay hinges (with or without a friction system)*

CEN/TS 13126-7, *Building hardware, fittings for windows and door height windows — Requirements and test methods — Part 7: Finger catches*

EN 13126-8, *Building hardware - Hardware for windows and balcony doors — Part 8: Requirements and test procedures — Tilt&Turn, Tilt-First and Turn-Only hardware*

CEN/TS 13126-9, *Building hardware, fittings for windows and door height windows — Requirements and test methods — Part 9: Pivot hinges*

CEN/TS 13126-10, *Building hardware, fittings for windows and door height windows — Requirements and test methods — Part 10: Arm balancing systems*

CEN/TS 13126-11, *Building hardware, fittings for windows and door height windows — Requirements and test methods — Part 11: Top hung projecting reversible hardware*

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CEN/TS 13126-12, *Building hardware, fittings for windows and door height windows — Requirements and test methods — Part 12: Side-hung projecting reversible hardware*

CEN/TS 13126-13, *Building hardware, fittings for windows and door height windows — Requirements and test methods — Part 13: Sash balances*

CEN/TS 13126-14, *Building hardware, fittings for windows and door height windows — Requirements and test methods — Part 14: Sash fasteners*

CEN/TS 13126-15, *Building hardware, fittings for windows and door height windows — Requirements and test methods — Part 15: Rollers*

CEN/TS 13126-16, *Building hardware, fittings for windows and door height windows — Requirements and test methods — Part 16: Fittings for lift and slide systems*

CEN/TS 13126-17, *Building hardware, fittings for windows and door height windows — Requirements and test methods — Part 17: Fittings for tilt and slide systems*

ISO 4520:1981, *Chromate conversion coatings on electroplated zinc and cadmium coatings*

3 Terms and definitions

For the purposes of this European Standard, the terms and definitions given in EN 12519:2004 and the following apply.

3.1**sample**

actual hardware components

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3.2**specimen**

mock-up window or pieces of fictive frame/sashes (i.e. profile pieces) to accommodate hardware components for testing

3.3**test-rig**

testing device onto which a sample can be mounted directly, without the need of a specimen

3.4**test equipment**

series of various testing rigs, devices and machinery enabling testing to be carried out

3.5**supporting sub frame**

supplementary fixing frame surrounding the specimen enabling the same to be clamped or screwed while testing

4 Classification**4.1 General**

For the purpose of this European Standard, hardware for windows and balcony doors shall be classified in accordance with the nine digit coding system as shown in Table 2. This coding system should be used for hardware components or sets, for example a complete set of Tilt&Turn hardware.

Table 2 — Classification of hardware for windows and balcony doors

1	2	3	4	5	6	7	8	9
Category of use	Durability	Mass	Fire	Safety in use	Corrosion	Security	Applicable part	Test sizes

4.2 Category of use (1 – first digit)

No marking is required for the category of use in accordance with 5.2.

4.3 Durability (2 – second digit)

Three grades shall be identified, as follows, in accordance with 5.3.

- grade 3: 10 000;
- grade 4: 15 000;
- grade 5: 25 000.

4.4 Mass (3 – third digit)

The third digit shall display the maximum tested sash-mass (weight), in accordance with 5.4 for example as follows:

EXAMPLE A sash mass of 15 kg should be 015 and a sash mass of 120 kg should be 120.

4.5 Fire resistance (4 – fourth digit)

One grade shall be identified in accordance with 5.5.

- grade 0 : no requirements.

4.6 Safety in use (5 – fifth digit)

One grade shall be identified in accordance with 5.6.

- grade 1: the product shall conform to the safety in use.

4.7 Corrosion resistance (6 – sixth digit)

Grades shall be identified in accordance with 5.7.

4.8 Security (7 – seventh digit)

No marking is required for the category of security in accordance with 5.8.

4.9 Applicable part (8 – eighth digit)

The eighth digit refers to the specific part of this European Standard, which was used for testing the hardware components or sets according to 5.9.

Example: Grade 5 for hardware being tested in accordance with CEN/TS 13126-5.