SLOVENSKI STANDARD
SIST EN 13126-1:2012

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Stavbno okovje - Okovje za okna in zastekljena vrata - Zahteve in preskusne metode - 1. del: Zahteve, skupne vsem vrstam okovja

Building hardware - Hardware for windows and door height windows - Requirements and test methods - 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

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

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

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This European Standard was approved by CEN on 15 October 2011.

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 CEN-CENELEC Management Centre or to any CEN member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Bulgaria, Croatia, 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.

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COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

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Foreword

This document (EN 13126-1:2011) 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 May 2012, and conflicting national standards shall be withdrawn at the latest by May 2012.

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 EN 13126-1:2006.

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 many parts: the first part being common to all the other parts of this Standards series, incorporating all types of hardware for windows and door height windows.

Annex A (informative) 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 of this Standards series.

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.

There are no significant changes to the previous version. The conversion of the CEN/TS into EN introduced only marginal changes in the wording.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, 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 the 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.

NOTE 1 In some cases where the hardware components or sets are tested directly on a test rig or window; a standard test frame is not necessary. The applicable test specifications are listed in the individual parts of this Standards series.

Throughout this European Standard all references to windows mean both windows and door height windows 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 the sash;

b) mass of the 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 2 The single complete standard consists of a combination of Part 1 together with one of the parts in this Standards series.

1 Scope

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

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

This European Standard does not apply to the following:

Fusible links, hardware for lifting side-hung windows, 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 If fire/smoke resistance is required, reference should be made to the respective standards mentioned in 5.5.

NOTE 2 If burglar resistance is required, reference should be made to EN 1627, EN 1628, EN 1629 and EN 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 and smoke control tests for door, shutter and openable window assemblies and elements of building hardware — Part 1: Fire resistance tests for doors, shutters and openable windows*

EN 1634-3, *Fire resistance and smoke control tests for door and shutter assemblies, openable windows and elements of building hardware — Part 3: Smoke control test for door and shutter assemblies*

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

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

FprEN 13126-2, *Building hardware — Requirements and test methods for windows and door height windows — Part 2: Window fastener handles*

FprEN 13126-3, *Building hardware — Hardware for windows and door height windows — Requirements and test methods — Part 3: Handles, primarily for Tilt&Turn, Tilt-First and Turn-Only hardware*

EN 13126-4, *Building hardware — Requirements and test methods for windows and door height windows — Part 4: Espagnolettes*

EN 13126-5, *Building hardware — Hardware for windows and balcony doors — Requirements and test methods — Part 5: Devices that restrict the opening of windows*

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

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

EN 13126-8, *Building hardware — Requirements and test methods for windows and doors height windows — Part 8: — 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*

EN 13126-10, *Building hardware — Requirements and test methods for windows and doors height windows— Part 10: Arm-balancing systems*

EN 13126-11, *Building hardware — Requirements and test methods for windows and doors height windows — Part 11: Top hung projecting reversible hardware*

EN 13126-12, *Building hardware — Requirements and test methods for windows and doors height windows — 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*

EN 13126-15, *Building hardware — Requirements and test methods for windows and doors height windows — Part 15: Rollers for horizontal sliding and sliding folding windows and doors*

EN 13126-16, *Building hardware — Requirements and test methods for windows and doors height windows — Part 16: Hardware for Lift&Slide windows and doors*

EN 13126-17, *Building hardware — Requirements and test methods for windows and doors height windows — Part 17: Hardware for Tilt&Slide windows and doors*

EN 13126-19, *Building hardware — Requirements and test methods for windows and door height windows — Part 19: Sliding Closing Devices*

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

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 it to be clamped or screwed while testing

4 Classification

4.1 General

For the purpose of this European Standard, hardware for windows and door height windows 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 door height windows

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.

NOTE For special applications, additional requirements may be specified in the other individual parts of this Standards series.

4.3 Durability (2 – second digit)

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

NOTE For special applications, further information regarding the marking of durability is specified in other individual parts of this Standards series.

— grade 3: 10 000 cycles;

— grade 4: 15 000 cycles;

— grade 5: 25 000 cycles.

4.4 Mass (3 – third digit)

The third digit shall display the maximum tested sash-mass (weight), unless otherwise defined in the individual parts of this Standards series 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.