



SLOVENSKI STANDARD
oSIST prEN 13126-14:2020
01-november-2020

Stavbno okovje - Okovje za okna in zastekljena vrata - Zahteve in preskusne metode - 14. del: Sponka drsnih oken

Building hardware - Hardware for windows and door height windows - Requirements and test methods - Part 14: Sash fasteners

Baubeschläge - Beschläge für Fenster und Fenstertüren - Anforderungen und Prüfverfahren - Teil 14: Einreiberverschlüsse für Schiebefenster

Quincaillerie pour le bâtiment - Ferrures de fenêtres et portes-fenêtres - Exigences et méthodes d'essais - Partie 14 : Verrouillages à came

<https://standards.iteh.ai/catalog/standards/sist/61ae218f-05f1-4071-9f27-869d241b377/osist-pr-en-13126-14-2020>

Ta slovenski standard je istoveten z: prEN 13126-14

ICS:

91.190 Stavbna oprema Building accessories

oSIST prEN 13126-14:2020 **en,fr,de**

iTeh STANDARD PREVIEW
(standards.iteh.ai)

[oSIST prEN 13126-14:2020](https://standards.iteh.ai/catalog/standards/sist/61ae218f-05f1-4071-9f27-a869d241b377/osist-pren-13126-14-2020)

<https://standards.iteh.ai/catalog/standards/sist/61ae218f-05f1-4071-9f27-a869d241b377/osist-pren-13126-14-2020>

EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

DRAFT
prEN 13126-14

October 2020

ICS 91.190

Will supersede EN 13126-14:2012

English Version

Building hardware - Hardware for windows and door height windows - Requirements and test methods - Part 14: Sash fasteners

Quincaillerie pour le bâtiment - Ferrures de fenêtres et
portes-fenêtres - Exigences et méthodes d'essais -
Partie 14 : Verrouillages à came

Baubeschläge - Beschläge für Fenster und Fenstertüren
- Anforderungen und Prüfverfahren - Teil 14:
Einreiberverschlüsse für Schiebefenster

This draft European Standard is submitted to CEN members for enquiry. It has been drawn up by the Technical Committee CEN/TC 33.

If this draft becomes a European Standard, 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.

This draft European Standard was established by CEN 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, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and United Kingdom.

Recipients of this draft are invited to submit, with their comments, notification of any relevant patent rights of which they are aware and to provide supporting documentation.

Warning : This document is not a European Standard. It is distributed for review and comments. It is subject to change without notice and shall not be referred to as a European Standard.



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

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

Contents

	Page
European foreword.....	3
1 Scope	5
2 Normative references	5
3 Terms and definitions	5
4 Classification.....	5
4.1 General.....	5
4.2 Durability (1 – first box)	6
4.3 Mass (2 – second box).....	6
4.4 Corrosion resistance (3 – third box)	6
4.5 Test sizes (4 – fourth box).....	6
4.6 Example of classification for sash fasteners.....	6
5 Requirements	7
5.1 Dangerous substances.....	7
5.2 Durability	7
5.3 Static force tests.....	7
5.3.1 General.....	7
5.3.2 Operating force test.....	7
5.3.3 Excessive horizontal force test.....	7
5.3.4 Excessive vertical force test	7
5.4 Wear test	8
5.5 Critical deformation test.....	8
5.6 Corrosion resistance	8
6 Test equipment and preparation for the test	8
7 Test procedure	9
7.1 Samples.....	9
7.2 Durability test procedure.....	9
7.3 Static force test procedure.....	9
7.3.1 Operating force test procedure.....	9
7.3.2 Excessive horizontal force test procedure.....	9
7.3.3 Excessive vertical force test procedure	10
7.4 Wear test procedure	10
7.5 Critical deformation test procedure	10
7.6 Corrosion resistance test.....	10
8 Marking.....	11
Annex A (informative) Test procedure.....	12
Annex B (informative) Flowchart of test procedure.....	13
Bibliography.....	14

European foreword

This document (prEN 13126-14:2020) 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 document is currently submitted to the CEN Enquiry.

This document will supersede EN 13126-14:2012.

With regard to EN 13126-14:2012, the following significant changes were made:

- EN 13126-14 now is independent from EN 13126-1; all necessary information is included without the need of any further information from EN 13126-1;
- several editorial changes in the wording for a better understanding;
- new terms and definitions added under 3.3 (sash width) and 3.4 (sash height);
- under 4.1 classification system changed completely
 - former digit 1 (Category of use) changed into box 1 (Durability)
 - former digit 2 (Durability) changed into box 2 (Mass)
 - former digits 3, 4 and 5 deleted
 - former digit 6 (Corrosion resistance) changed into box 3 (Corrosion resistance)
 - former digits 7 and 8 deleted
 - former digit 9 (Test sizes – test limitations) changed into box 4 (Test sizes);
- under 4.2 new grades for the number of cycles defined; H1 (5 000), H2 (10 000) and H3 (20 000);
- under 4.5 new example of classification added in accordance with the new classification system; 2 alternative ways (table or alphanumerical) to show the classification defined;
- under 5.2 information regarding new grades for durability added;
- under 5.6 information regarding corrosion resistance added;
- under Clause 6 “Test equipment and preparation for the test” additional information added;
- under Clause 8 new clause added regarding marking with information from the current version of EN 13126-1;

This document is one of a series of European Standards for building hardware products for windows and door height windows. This document is independent of EN 13126-1.

EN 13126 consists of the following parts:

- EN 13126-1, *Building hardware — Hardware for windows and door height windows — Requirements and test methods — Part 1: Requirements common to all types of hardware*;

prEN 13126-14:2020 (E)

- EN 13126-2, *Building hardware — Hardware for windows and door height windows — Requirements and test methods — Part 2: Window fastener handles;*
- EN 13126-3, *Building hardware — Hardware for windows and door-height windows — Requirements and test methods — Part 3: Handles, primarily for Tilt and 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 door height windows — Requirements and test methods — Part 5: Devices that restrict the opening of windows and door height windows;*
- EN 13126-6, *Building hardware — Hardware for windows and door height windows — Requirements and test methods — Part 6: Variable geometry stay hinges (with or without a friction stay);*
- EN 13126-7, *Building hardware — Requirements and test methods for windows and door height windows — Part 7: Finger catches;*
- EN 13126-8, *Building hardware — Hardware for windows and door height windows — Part 8: Requirements and test methods for tilt and turn, Tilt-First and Turn-Only hardware;*
- EN 13126-9, *Building hardware — Requirements and test methods for windows and door height windows — Part 9: Hardware for horizontal and vertical pivot windows;*
- EN 13126-10, *Building hardware — Requirements and test methods for windows and door height windows — Part 10: Arm-balancing systems;*
- EN 13126-11, *Building hardware — Requirements and test methods for windows and door height windows — Part 11: Top hung projecting reversible hardware;*
- EN 13126-12, *Building hardware — Requirements and test methods for windows and door height windows — Part 12: Side hung projecting reversible hardware;*
- EN 13126-13, *Building hardware — Hardware for windows and balcony door — Requirements and test methods — Part 13: Sash balances;*
- EN 13126-14, *Building hardware — Hardware for windows and door height windows — Requirements and test methods — Part 14: Sash fasteners;*
- EN 13126-15, *Building hardware — Hardware for windows and door height windows — Requirements and test methods — Part 15: Rollers for sliding and hardware for sliding folding windows;*
- EN 13126-16, *Building hardware — Hardware for windows and door height windows — Requirements and test methods — Part 16: Hardware for Lift and Slide windows;*
- EN 13126-17, *Building hardware — Hardware for windows and door height windows — Requirements and test methods — Part 17: Hardware for Tilt and Slide windows;*
- EN 13126-19, *Building hardware — Requirements and test methods for windows and door height windows — Part 19: Sliding Closing Devices*

iTech STANDARD PREVIEW
(standards.itech.ai)

1 Scope

This document specifies requirements and test methods for durability, strength, security and function of sash fasteners for windows and door height windows.

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.

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

3 Terms and definitions

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

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

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

3.1

sash fastener

device to secure, in the closed position, the sashes of a double or single hung vertically sliding window and the sashes of a horizontally sliding window

3.2

pull-in

distance the sashes are moved towards each other during operation of a sash fastener from a fully open to a fully closed position

3.3

sash width

total horizontal outer dimension of the sash

3.4

sash height

total vertical outer dimension of the sash

4 Classification

4.1 General

Sash fasteners shall be classified in accordance with the four box classification system (see Table 1).

Table 1 — Classification system of hardware

box	1	2	3	4
characteristic	Durability	Mass	Corrosion resistance	Test sizes

prEN 13126-14:2020 (E)**4.2 Durability (1 – first box)**

The first box shall display the grade applied to the durability test in accordance with 5.2:

- grade H1: 5 000
- grade H2: 10 000
- grade H3: 20 000

4.3 Mass (2 – second box)

The second box shall display the maximum tested sash-mass (weight).

The mass range starts from 10 kg and varies in steps of 5 kg up to 50 kg. After that the mass varies unlimited in steps of 10 kg. An unlimited number of grades are identified, whereby 010 is the lowest.

Table 2 — Tested sash-mass

Grade	010	015	020	025	030	035	040	045	050	060	070	080	...
Mass (kg)	10	15	20	25	30	35	40	45	50	60	70	80	...

The mass of the test sash shall be determined in accordance with the claims made by the hardware manufacturer.

4.4 Corrosion resistance (3 – third box)

The third box shall display the grade regarding corrosion resistance in accordance with 5.6.

4.5 Test sizes (4 – fourth box)

The fourth box shall display the test sizes which were used for testing the sash fastener.

SW = sash width in mm / SH = sash height in mm

EXAMPLE 600 SW x 1 200 SH

NOTE The specified sizes are test sizes only. It does not relate to the maximum sizes to which a window with this hardware may be fabricated.

4.6 Example of classification for sash fasteners

a) Alternative 1: Table with boxes

Standard	Box			
	1	2	3	4
EN 13126-14:YYYY	H2	040	3	600/1 200

In accordance with Clause 8 the information regarding the classification by using a table with boxes shall always be shown together with the number of this document, EN 13126-14.

b) Alternative 2: Alphanumerical

EN 13126-14:20XX H2-040-3-600 × 1 200

This denotes sash fasteners, which have:

—	box 1	durability	grade H2 (10 000 cycles)
—	box 2	mass	40 kg
—	box 3	corrosion resistance	grade 3
—	box 4	test sizes	SW = 600 mm, SH = 1 200 mm

5 Requirements

5.1 Dangerous substances

Materials in products should not release any dangerous substances in excess of the maximum levels specified in the European material standards and any national regulations.

5.2 Durability

The test specified in 7.2 shall be carried out to ensure the sash fastener is capable of continued operation after cycling in accordance with the grades specified in 7.2, with regard given to normal maintenance.

Upon completion of the durability test in accordance with 7.2 the sash fastener shall continue to function normally.

The manufacturer specifies one of the following 3 grades for the number of cycles, with which the durability test shall be carried out:

- grade H1: 5 000 (+1 %) cycles;
- grade H2: 10 000 (+1 %) cycles;
- grade H3: 20 000 (+1 %) cycles;

5.3 Static force tests

5.3.1 General

The tests specified in 7.3.1, 7.3.2 and 7.3.3 shall be used to ensure the hardware is capable of withstanding both normal operations and excessive forces with minimal deformation.

5.3.2 Operating force test

Upon completion of the operating force test in accordance with 7.3.1, the operating force shall not exceed 5 Nm nor an applied force of 50 N.

5.3.3 Excessive horizontal force test

Upon completion of the excessive horizontal force test in accordance with 7.3.2, the maximum deformation shall not exceed 1 mm.

5.3.4 Excessive vertical force test

Upon completion of the excessive vertical force test in accordance with 7.3.3, the maximum deformation shall not exceed 1 mm.

prEN 13126-14:2020 (E)**5.4 Wear test**

The tests specified in 7.4 shall be used to ensure the sash fastener is capable of continued operation after cycling, under load, to the same number of cycles as that selected in 5.2, with regard given to normal maintenance.

Upon completion of the wear test in accordance with 7.4:

- The pull-in shall not have increased by more than 0,2 mm.
- The sash fastener shall not be fractured.
- The sash fastener shall continue to function normally.

5.5 Critical deformation test

The test specified in 7.5 shall be used to ensure the sash fastener retains sufficient pull-in following prolonged usage, including additional excessive force.

Upon completion of the critical deformation test in accordance with 7.5, there shall be no permanent deformation of the sash fastener.

5.6 Corrosion resistance

Hardware shall conform to the grades listed in EN 1670 whereby grade 2 is the minimum.

Unless already stated with a test report by the manufacturer, the sash fastener shall be tested in accordance with EN 1670.

NOTE The evaluation of the corrosion resistance is limited to the essential areas (as a rule, the visible surfaces of the installed hardware).

[oSIST prEN 13126-14:2020](https://standards.iteh.ai/catalog/standards/sist/61ae218f-05f1-4071-9f27-a869d241b977/osist-prEN-13126-14-2020)

<https://standards.iteh.ai/catalog/standards/sist/61ae218f-05f1-4071-9f27-a869d241b977/osist-prEN-13126-14-2020>

6 Test equipment and preparation for the test

The sash fastener shall be installed in accordance with the manufacturer's fixing instructions.

The hardware tested shall conform to the manufacturer's recommendations for the size of the specimen. The dimensions of the specimen shall conform to 4.4.

The tolerance for the specimen (test sizes) is ± 10 mm.

The hardware manufacturer shall provide complete test specimens for the testing institute. A drawing of the profile cross-section with relevant information shall be enclosed in the test application, as well as the necessary hardware installation information for the windows.

The test shall be conducted on a test rig which corresponds in function and shape to the window for which the hardware is intended. The hardware tested shall conform to the manufacturer's recommendation for the size and mass of the test specimen.

The forces and torques shall be applied with moderate velocity as can be expected in practise in a jerk- and jolt-free manner.

The test rig shall be provided with adjustable datum surfaces that can be mounted alongside the window fastener handles, so that deviations of pull-in can be measured and documented.

Test room ambient temperature from 15 °C to 30 °C.