



SLOVENSKI STANDARD
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Building hardware - Hardware for windows and door height windows - Requirements and test methods - Part 4: Espagnolettes

Baubeschläge - Beschläge für Fenster und Fenstertüren - Anforderungen und Prüfverfahren - Teil 4: Kantenverschlüsse

Quincaillerie pour le bâtiment - Ferrures de fenêtres et portes-fenêtres - Exigences et méthodes d'essai - Partie 4 : Crémones-verrous

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EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

DRAFT
prEN 13126-4

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Will supersede EN 13126-4:2008

English Version

**Building hardware - Hardware for windows and door
height windows - Requirements and test methods - Part 4:
Espagnolettes**

Quincaillerie pour le bâtiment - Ferrures de fenêtres et
portes-fenêtres - Exigences et méthodes d'essai - Partie
4 : Crémones-verrous

Baubeschläge - Beschläge für Fenster und Fenstertüren
- Anforderungen und Prüfverfahren - Teil 4:
Kantenverschlüsse

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.

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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.

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

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European foreword

This document (prEN 13126-4:2020) 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 13126-4:2008.

With regard to EN 13126-4:2008, the following significant changes were made:

- EN 13126-4 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 3.2 to 3.11;
- under 4.1 classification system changed completely; former digits 1 (Category of use), 4 (Fire resistance), 5 (Safety in use), 7 (Security) and 8 (Applicable part) deleted; former digit 2 changed into box 1 (Durability), former digit 3 changed into box 2 (Mass), former digit 6 changed into box 3 (Corrosion resistance) and former digit 9 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 4.6 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 handle operation tolerance added;
- under Clause 6 “Test equipment and preparation for the test” additional information added for the test rig (6.1), the specimen (6.2) and the mounting of the specimen (6.3);
- under 6.2 “Specimen” the use of gaskets added in the description instead of the prior counteracting force of 20 N per locking point;
- 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:

- *Building hardware — Hardware for windows and door height windows — Requirements and test methods — Part 1: Requirements common to all types of hardware;*
- *Building hardware — Hardware for windows and door height windows — Requirements and test methods — Part 2: Window fastener handles;*

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- *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;*
- *Building hardware — Hardware for windows and door height windows — Requirements and test methods — Part 4: Espagnolettes;*
- *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;*
- *Building hardware — Requirements and test methods for windows and doors height windows — Part 6: Variable geometry stay hinges (with or without a friction stay);*
- *Building hardware — Hardware for windows and door height windows — Requirements and test methods — Part 7: Finger catches;*
- *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;*
- *Building hardware — Requirements and test methods for windows and door height windows — Part 9: Hardware for horizontal and vertical pivot windows;*
- *Building hardware — Requirements and test methods for windows and doors height windows — Part 10: Arm-balancing systems;*
- *Building hardware — Requirements and test methods for windows and doors height windows — Part 11: Top hung projecting reversible hardware;*
- *Building hardware — Requirements and test methods for windows and doors height windows — Part 12: Side hung projecting reversible hardware;*
- *Building hardware — Hardware for windows and balcony doors — Requirements and test methods — Part 13: Sash balances;*
- *Building hardware — Hardware for windows and balcony doors — Requirements and test methods — Part 14: Sash fasteners;*
- *Building hardware — Hardware for windows and doors height windows — Requirements and test methods — Part 15: Rollers for horizontal sliding and hardware for sliding folding windows;*
- *Building hardware — Hardware for windows and doors height windows — Requirements and test methods — Part 16: Hardware for Lift and Slide windows;*
- *Building hardware — Hardware for windows and doors height windows — Requirements and test methods — Part 17: Hardware for Tilt and Slide windows;*
- *Building hardware — Requirements and test methods for windows and door height windows — Part 19: Sliding Closing Devices.*

The performance tests incorporated in this document 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.

A full contribution to the preparation of this document has been made by the European manufacturer's organization 'ARGE' and National Standards institutions.

1 Scope

This part of EN 13126 specifies requirements and test methods for durability, strength, security and function of espagnolettes and their striker plates for use on windows and door height windows.

NOTE Espagnolettes are defined as a locking mechanism for windows and door height windows that usually have a maximum handle movement of 90°.

This document does not include door bolts within the scope of EN 12051, or locks with latch and/or dead bolt within the scope of EN 12209 or multi-point locks within the scope of EN 15885.

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

espagnolette

locking mechanism for windows and door height windows that usually have a maximum handle movement of 90°

3.2

sample

actual hardware components which is due to be tested

3.3

specimen

window without gaskets to accommodate hardware components (samples) for testing

Note 1 to entry: The gaskets may be applied to the specimen; this shall replace the counteracting force of 20 N per locking point.

3.4

test rig

testing device onto which the specimen is mounted

3.5

test equipment

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

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3.6 supporting sub frame
 supplementary fixing frame surrounding the specimen enabling it to be mounted on the test rig while testing

Note 1 to entry: For example wood, steel or aluminium could be used.

3.7 locked closed position
 position in which the sashes espagnolette-side rests up against the frame and the hardware is locked

3.8 closed position
 position in which the sashes espagnolette-side rests up against the frame, and the hardware is unlocked

3.9 rest time
 time in seconds of a stationary period between the different steps

Note 1 to entry: A stationary period is between the following steps:

- between a change of direction of the moving of the sash;
- between the completion of a moving of the sash and the subsequent operating of the hardware;
- between the completion of the operation of the hardware and the subsequent moving of the sash;
- between two cycles.

3.10 sash rebate width
SRW

sash width minus the 2 overlap (also known as “rebate leg”) dimensions; it is the level, in which the hardware components for the locking mechanism works

3.11 sash rebate height
SRH

sash height minus the 2 overlap (also known as “rebate leg”) dimensions; it is the level, in which the hardware components for the locking mechanism works

4 Classification

4.1 General

Espagnolettes windows and door height windows shall be classified in accordance with the four box coding system (see Table 1).

Table 1 — Classification system of hardware

Box	1	2	3	4
	Durability	Mass	Corrosion resistance	Test sizes

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)

No requirements, the second box shall display the digit 0.

4.4 Corrosion resistance (3 – third box)

The third box shall display the grade regarding corrosion resistance in accordance with 5.5.

4.5 Test Sizes (4 – fourth box)

The fourth box shall display the test sizes which were used for testing the espagnolette for windows and door height windows as follows:

All sizes are stated in mm, SRW. = Sash Rebate Width, SRH. = Sash Rebate Height:

- 600 mm wide × 1 200 mm high for windows;
- 900 mm wide × 2 300 mm high for door height windows.

In the case of availability of the espagnolette in different sizes for windows and door height windows, the espagnolette should be tested in the size for door height windows only.

NOTE The stated sizes are test sizes only. They do not relate to the maximum sizes to which a window may be fabricated.

The espagnolette and the striker plates should be installed in the upright side of the specimen, in accordance with the respective SRH (=Sash Rebate Height) of 1 200 (window) or 2 300 mm (door height window).

4.6 Example of classification for espagnolettes (EN 13126-4)

a) Alternative 1: Table with boxes

	1	2	3	4
EN 13126-4:YYYY	H2	0	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 13126-4.

b) Alternative 2: Alphanumerical

EN 13126-4:YYYY H2-0-3-600/1 200

This denotes an espagnolette for windows, which have:

box 1 durability grade H2 (10 000 cycles)

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box 2	mass	0 – no requirement
box 3	corrosion resistance	grade 3
box 4	test sizes	SRW = 600 mm / SRH = 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 used to ensure that the espagnolette is capable of continued operation after the durability test (with normal maintenance). The 3 grades for the number of cycles are specified following:

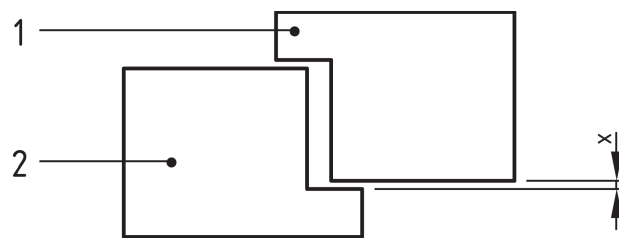
- grade H1: 5 000 cycles (+ 1 %);
- grade H2: 10 000 cycles (+ 1 %);
- grade H3: 20 000 cycles (+ 1 %).

Before and after the durability test the operating forces shall not exceed a maximum of 10 Nm. The espagnolette shall operate through its normal full range of travel to engage into the striker plates.

5.3 Locking point variable tolerance

Before and after the durability test, the distance "X" between the frame surface and the sash-overlap edge shall be measured in conjunction with a counteracting force of 20^{+5}_0 N per locking point. The results shall not differ by more than 1 mm (see Figure 1).

NOTE This requirement does not apply to espagnolettes for sliding windows and sliding door height windows.

**Key**

- 1 frame
- 2 sash
- X distance X

Figure 1 — Measurement of locking point variable tolerance

5.4 Minimum closing device resistance

The espagnolette shall withstand a minimum torque of 25 Nm. Upon completion of this exerted torque, the espagnolette shall operate as intended.