



SLOVENSKI STANDARD

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**Stavbno okovje - Zahteve in preskusne metode za okna in zastekljena vrata - 2.
del: Okenska zapirala**

Building hardware - Requirements and test methods for windows and doors height
windows - Part 2: Window fastener handles

Baubeschläge - Beschläge für Fenster und Fenstertüren - Anforderungen und
Prüfverfahren - Teil 2: Fenstergriffe

Quincaillerie pour le bâtiment - Exigences et méthodes d'essai des ferrures de fenêtres
et portes-fenêtres - Partie 2: Poignées à ergot de verrouillage

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91.190 Stavbna oprema Building accessories

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Building hardware - Requirements and test methods for windows and doors height windows - Part 2: Window fastener handles

Quincaillerie pour le bâtiment - Exigences et méthodes d'essai des ferrures de fenêtres et portes-fenêtres - Partie 2: Poignées à ergot de verrouillage

Baubeschläge - Beschläge für Fenster und Fenstertüren - Anforderungen und Prüfverfahren - Teil 2: Einreibverschlüsse

This European Standard was approved by CEN on 26 August 2011.

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Foreword

This document (EN 13126-2:2011) 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of an identical text or by endorsement, at the latest by April 2012, and conflicting national standards shall be withdrawn at the latest by April 2012.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 CEN/TS 13126-2:2004.

The major changes of this document to CEN/TS 13126-2:2003 are:

- the addition of three grades and three extensions for the security
- the addition of security requirements and the corresponding tests
- the modification of the number of test samples (8 instead of 3)
- the increase to 550 cycles/h rate for the durability test.

4.8 Security (7 – seventh digit)

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Three grades have been added into this draft to give similarity with prEN13126-3, three extensions have also been added for the locking style of the handle.

Grade 0: Without security

Grade 1: 35 Nm resistance against twisting-off and forcing-off

Grade 2: 100 Nm resistance against twisting-off and forcing-off

Extension 0: No locking mechanism

Extension 1: Non-key operated locking mechanism (e.g. ‘PTO’: Push-to-open)

Extension 2: Key-operated locking mechanism

EN 13126-2:2011 (E)

Table 1 – Security

| Grade | Description |
|-------|---|
| 0/0 | No requirements against twisting-off and forcing-off / without locking mechanism |
| 1/1 | 35 Nm resistance against twisting-off and forcing-off / Non-key operated locking mechanism ('PTO': push to open) |
| 1/2 | 35 Nm resistance against twisting-off and forcing-off / Key operated locking mechanism |
| 2/1 | 100 Nm resistance against twisting-off and forcing-off / Non-key operated locking mechanism ('PTO': push to open) |
| 2/2 | 100 Nm resistance against twisting-off and forcing-off / Key operated locking mechanism |

Digit seven will now contain two classifications i.e. 1/2

Digit 7 security - grade 1/2; rated as resisting 35 Nm twisting-off and forcing-off force, and has key operated locking mechanism.

With the addition of locking handles several additional points have been included:

5.8.1 General**5.8.2 Durability of the locking mechanism** – new requirement**5.8.3 Torque resistance of the locking mechanism / Solid fixing** – new requirement**5.8.4 Twist-off resistance** – new requirement**5.8.5 Forcing off resistance** – new requirement**7.1 Samples** – Eight samples are to be submitted apposed to three

7.7 Durability Test Procedure, the rate that the cycle test is carried out has been increased to 550 cycles/h in line with prEN13126-3

7.9 Locking Mechanism durability test – new requirement**7.10 Torque resistance of the locking mechanism / solid fixing test** – new requirement**7.11 Test – Resistance against twisting-off and forcing-off** – new requirement

In general there has been a reduction in the tolerance band within the draft over the last published standard.

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

EN 13126 *Building hardware — Requirements and test methods for windows and doors height windows* consists of the following parts:

Part 1: Requirements common to all types of hardware

Part 2: Window fastener handles¹⁾

Part 3: Manoeuvring fittings for espagnolette bolts/sliding button¹⁾

Part 4: Espagnolettes

Part 5: Devices that restrict the opening of windows¹⁾

Part 6: Variable geometry stay hinges (with or without a friction stay)

Part 7: Finger catches

Part 8: Tilt&Turn, Tilt-First and Turn-Only hardware

Part 9: Pivot hinges¹⁾

Part 10: Arm-balancing systems

Part 11: Top hung projecting reversible hardware

Part 12: Side hung projecting reversible hardware

Part 13: Sash balances¹⁾

Part 14: Sash fasteners¹⁾

Part 15: Rollers for horizontal sliding and sliding folding windows and doors

Part 16: Hardware for Lift&Slide windows and doors

Part 17: Hardware for Tilt&Slide windows and doors

Part 18: Requirements and test procedures for durability, strength, security and functionality of Fan light openers for windows and door height windows

Part 19: Sliding Closing Devices

The performance tests incorporated in this 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.

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.

¹⁾ Under revision currently on Technical specification.

EN 13126-2:2011 (E)**1 Scope**

This European Standard specifies requirements and test methods for durability, strength, security and functionality of window fastener handles.

This European Standard does not apply to the following hardware:

- a) handles - primarily for Tilt & Turn, Tilt-First and Turn-Only hardware, refer to EN 13126-3;
- b) electromechanical hardware.

2 Normative references

The following referenced documents are indispensable for the application 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*

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

EN 13126-1:2006, *Building hardware — Requirements and test methods for windows and doors height windows — Part 1: Requirements common to all types of hardware*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in EN 13126-1:2006 and EN 12519:2004 and the following apply.

3.1**window fastener handle**

operating device, where applicable with releasable and / or locking mechanism, to hold the window in a closed position

NOTE Also known as Cockspur handles.

3.2**spur**

device projecting from the handle that interacts with the compression wedge / keeper to close the window to give the desired pull-in

3.3**pull-in**

distance the sash is moved towards the frame during operation of a window fastener handle from the initial contact of the handle spur to the fully closed position

3.4**non-key operated locking mechanism**

device within the handle assembly that when engaged prevents movement of the handle from the locked position

EXAMPLE 'push-to-open', button, thumb turn

3.5**locking mechanism**

key operated device within the handle assembly that when engaged prevents movement of the handle from the locked position (e.g. locking cylinder or key)

3.6**compression wedge / keeper**

component applied to the window in a position to allow interaction with the handle spur to hold the window in a closed position

3.7**weatherseal**

compressible gasket between the sash and the frame that prevents air and water ingress

3.8**closing conditions****3.8.1****closed position**

position in which the moving part of the window is resting against the frame or weather seal on all sides and the fastening system is not engaged

3.8.2**closed and fastened position**

position in which the moving part of the window is resting against the frame or compressed weather seal on all sides and the fastening system is engaged

3.8.3**closed and fastened and locked position**

position in which the moving part of the window is resting against the frame or compressed weather seal on all sides and the fastening system is engaged and locked (e.g. by key)

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4 Classification**4.1 General**

The classification for window fastener handles shall be in accordance with the requirements of EN 13126-1:2006, Clause 4.

4.2 Category of use (1 – first digit)

No marking is required for the category of use in accordance with EN 13126-1:2006, 4.2.

4.3 Durability (2 – second digit)

Grades shall be in accordance with EN 13126-1:2006, 4.3 and 5.6 of this European Standard.

4.4 Mass (3 – third digit)

Grades shall be in accordance with EN 13126-1:2006, 4.4.

4.5 Fire resistance (4 – fourth digit)

One grade shall be identified in accordance with EN 13126-1:2006, 4.5.

— grade 0: no requirements.

EN 13126-2:2011 (E)**4.6 Safety in use (5 – fifth digit)**

One grade shall be identified in accordance with EN 13126-1:2006, 4.6.

- grade 1: the hardware shall conform to the requirements of EN 13126-1.

4.7 Corrosion resistance (6 – sixth digit)

Grades shall be in accordance with EN 13126-1:2006, 4.7.

4.8 Security (7 – seventh digit)

The following grades / extensions are identified:

- grade 0: without security;
- grade 1: 35 Nm resistance against twisting-off and forcing-off;
- grade 2: 100 Nm resistance against twisting-off and forcing-off;
- extension 0: no locking mechanism;
- extension 1: non-key operated locking mechanism (e.g. 'PTO': Push-to-open);
- extension 2: key-operated locking mechanism.

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Table 1 – Security

| Grade | Description |
|-------|---|
| 0/0 | No requirements against twisting-off and forcing-off / without locking mechanism |
| 1/1 | 35 Nm resistance against twisting-off and forcing-off / non-key operated locking mechanism ('PTO': push to open) |
| 1/2 | 35 Nm resistance against twisting-off and forcing-off / key operated locking mechanism |
| 2/1 | 100 Nm resistance against twisting-off and forcing-off / non-key operated locking mechanism ('PTO': push to open) |
| 2/2 | 100 Nm resistance against twisting-off and forcing-off / key operated locking mechanism |

4.9 Application (8 – eighth digit)

The eighth digit shows '2' indicating the part of the standard which was used for testing the window fastener handles, in accordance with EN 13126-1:2006, 4.9.

4.10 Test sizes – Size limitations (9 – ninth digit)

No requirement.

4.11 Example of classification for window fastener handles (EN 13126-2)

| | | | | | | | | |
|---|---|---|---|---|---|-----|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| - | 5 | - | 0 | 1 | 2 | 1/2 | 2 | - |

This denotes a window fastener handle, which has the following:

| | | |
|---------|----------------------|---|
| Digit 1 | category of use | no requirement; |
| Digit 2 | durability | grade 5 (25 000 cycles); |
| Digit 3 | mass | no requirement; |
| Digit 4 | fire resistance | grade 0 (no requirements); |
| Digit 5 | safety in use | grade 1; |
| Digit 6 | corrosion resistance | grade 2; |
| Digit 7 | security | grade 1/2; rated as resisting 35 Nm twisting-off and forcing-off force, and has key operated locking mechanism; |
| Digit 8 | applicable part | tested in accordance with part 2 of this suite of standards; |
| Digit 9 | test sizes | no requirement. |

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5 Requirements

5.1 General

[SIST EN 13126-2:2011](https://standards.iteh.ai/catalog/standards/sist/55a30c6b-dd21-4ab5-9403-9b77ac48711e/sist-en-13126-2:2011)

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The requirements for window fastener handles shall be in accordance with EN 13126-1:2006, Clause 5.

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

5.2 Operating torque

The test specified in 7.2 shall be used to ensure the window fastener handle is capable of withstanding normal operation.

Upon completion of the operating torque test in accordance with 7.2, the operating torque shall not exceed 10 Nm.

5.3 Torsion strength

The test specified in 7.3 shall be used to ensure the window fastener handle is capable of withstanding additional force applied once the handle is closed.

Upon completion of the additional torque test in accordance with 7.3, the measured deformity at the point of the applied load shall not exceed 5 mm.

5.4 Tensile strength - eccentric

The tests specified in 7.4 shall be used to ensure a window fastener handle is capable of withstanding leverage force being applied away from the sash.