



SLOVENSKI STANDARD
SIST-TS CEN/TS 13126-16:2005
01-januar-2005

Stavbno okovje, pritrjevalni sistemi za okna in zastekljena vrata – Zahteve in preskusne metode – 16. del: Okovje za dvizne in drsne sisteme

Building hardware, fittings for windows and door height windows - Requirements and test methods - Part 16: Fittings for lift and slide systems

Baubeschläge, Beschläge für Fenster und Fenstertüren - Anforderungen und Prüfverfahren - Teil 16: Beschläge für Hebeschiebe-Systeme

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Quincaillerie pour le bâtiment, ferrures de fenêtres et portes-fenêtres - Prescription et méthodes d'essais - Partie 16: Ferrures pour dispositifs levants-coulissants

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Ta slovenski standard je istoveten z: CEN/TS 13126-16:2004

ICS:

91.190

SIST-TS CEN/TS 13126-16:2005 **en**

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English version

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Hebeschiebe-Systeme

This Technical Specification (CEN/TS) was approved by CEN on 18 August 2003 for provisional application.

The period of validity of this CEN/TS is limited initially to three years. After two years the members of CEN will be requested to submit their comments, particularly on the question whether the CEN/TS can be converted into a European Standard.

CEN members are required to announce the existence of this CEN/TS in the same way as for an EN and to make the CEN/TS available promptly at national level in an appropriate form. It is permissible to keep conflicting national standards in force (in parallel to the CEN/TS) until the final decision about the possible conversion of the CEN/TS into an EN is reached.

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Contents

	Page
Foreword	3
1 Scope	4
2 Normative references	4
3 Terms and definitions	4
4 Classification	4
5 Requirements	5
6 Test apparatus	6
7 Test methods	6
Annex A (informative) Apparatus	9
Annex B (normative) Flow chart of test procedure	12

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Foreword

This document (CEN/TS 13126-16:2004) 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.

A full contribution to the preparation of this Technical Specification has been made by the European manufacturers organisation ‘ARGE’ and National Standards institutions.

This Technical Specification is one of a series of Technical Specifications dedicated to building hardware products. It is divided into seventeen parts to incorporate all types of windows and door height windows.

Informative annex A of CEN/TS 13126-1 gives detailed schedules of the elements of components of the seventeen parts of this Technical Specification.

Normative annex B of CEN/TS 13126-1 gives schedules of the elements of components used on the 21 types of window opening functions.

Normative and informative annex to all parts of this Technical Specification are indicated in the content of the seventeen parts.

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.

Annex A is informative while annex B is normative.

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

1 Scope

This Part of CEN/TS 13126 gives requirements and test methods for durability, strength, security and function of fittings for lift and slide systems for windows and door height windows.

2 Normative references

This Technical Specification incorporates by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text, and the publications are listed hereafter. For dated references, subsequent amendments to, or revisions of, any of these publications apply to this standard only when incorporated in it by amendment or revision. For undated references, the latest edition of the publication referred to applies (including amendments).

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

EN 12519:2004, *Windows and doors - Terminology*

CEN/TS 13126-1:2004, *Building hardware – Fittings for windows and door height windows – Requirements and test methods – Part 1: Requirements common to all types of fittings.*

CEN/TS 13126-15, *Building hardware – Fittings for windows and door height windows – Requirements and test-methods – Rollers*

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3 Terms and definitions

For the purposes of this Technical Specification, the terms and definitions given in EN 12519:2004 for windows and doors apply.

4 Classification

4.1 General

The classification for fittings for lift and slide systems shall be in accordance with the requirements of clause 4 in CEN/TS 13126-1:2004.

4.2 Category of use (first digit)

No requirement.

4.3 Durability (second digit)

Grades shall be in accordance with 4.3 of CEN/TS 13126-1:2004.

4.4 Mass (third digit)

Grades shall be in accordance with 4.4 of CEN/TS 13126-1:2004.

4.5 Fire resistance (fourth digit)

Grades shall be in accordance with 4.5 of CEN/TS 13126-1:2004.

4.6 Safety in use (fifth digit)

Grades shall be in accordance with 4.6 of CEN/TS 13126-1:2004.

4.7 Corrosion resistance (sixth digit)

Grades shall be in accordance with 4.7 of CEN/TS 13126-1:2004.

4.8 Security (seventh digit)

Grades shall be in accordance with 4.8 of CEN/TS 13126-1:2004.

4.9 Application (eighth digit)

One grade of fitting is identified :

- grade 1 : suitable for use on lift and slide windows (type P)

4.10 Test Sizes – Size limitations (ninth digit)

The window/door height window size in which the component has been tested shall be stated in accordance with the designated number listed in Table 3 of CEN/TS 13126-1:2004.

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5 Requirements

5.1 Introduction

The manufacturer shall provide the following information in addition to the standard fixing instructions

- a) maximum sash mass
- b) maximum sash dimensions
- c) tolerances for manufacture
- d) the number and location of locking points. (Minimum number required =3)

5.2 General

The requirements of fittings for lift and slide systems shall be met in accordance with clause 5 of CEN/TS 13126-1:2004.

5.3 Durability

The rollers shall meet the requirements of CEN/TS 13126-15.

5.4 Additional requirements

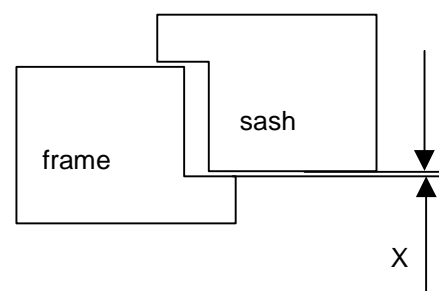
5.4.1 Lifting force

The force necessary to lift the window shall be measured before and after the durability test.

The maximum torque applied to the handle, with an applied force of $50 \text{ N} \begin{smallmatrix} +2,5 \\ 0 \end{smallmatrix}$ N per locking point, shall not exceed 30 Nm or an applied force of 100 N

5.4.2 Wear resistance

Before and after the durability test, the distance "X" between the frame surface and the sash-overlap-begin shall be measured in conjunction with a counteracting force of $50 \begin{smallmatrix} +1 \\ 0 \end{smallmatrix}$ N per locking point. The results shall not differ by more than 1 mm.



5.4.3 Abuse resistance

On completion of the test, the sash shall still be constrained by its fixings but is not required to operate.

6 Test apparatus

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The lift and slide system shall be mounted in a test apparatus as specified in clause 6 of CEN/TS 13126-1:2004 in accordance with the manufacturer's fixing instructions.

The minimum number of locking points required on the locking edge is three.

7 Test methods

7.1 Samples

Three samples shall be used for testing to this Technical Specification.

sample A – durability test.

sample B – corrosion test.

sample C – retained for reference control

If a specimen fails to meet the appropriate acceptance requirements, two further specimens shall be tested. A pass of the second test shall be accepted but failure shall be recorded accordingly.

There shall be no breakage of any part.

7.2 Procedure

The specimen shall be mounted on the test apparatus in accordance with the manufacturer's fixing instructions, according to the material for which it has been designed i.e. timber, PVCu, aluminium, without weather stripping.

The type of material and/or profile, size of screw for fixing the fittings and any other special features, shall be in accordance with the manufacturer's recommendations and shall be described in the test report.

Install the lift and slide system in the same manner in which it would be fitted in a horizontal sliding window according to the manufacturer's fixing instructions using the fixings provided for the type of window selected (see Figure 1).

The tests in 7.3, 7.4 and 7.5 shall be carried out in succession on the same specimen.

Cycling in test 7.3 shall be at the rate of 250 cycles/h $\frac{+25}{0}$ cycles/h, for the number of cycles according to the grade selected.

— grade 3 : 10 000 cycles $\frac{+500}{0}$ cycles

— grade 4 : 15 000 cycles $\frac{+750}{0}$ cycles

— grade 5 : 25 000 cycles $\frac{+1000}{0}$ cycles

7.3 Durability test

Cycle the window in accordance with clauses 8.2 and 8.3 of CEN/TS 13126-1:2004 as follows:

- The lift and slide action shall be to lift the window from the closed static position and slide for the full opening width of the test window.
- Return the window to the closed position and lower into the static/secure position.
- Apply a force of 50 N $\frac{+2,5}{0}$ N to each locking point to simulate the effect of weatherstripping.
- Close the test window to within a distance of 3 mm \pm 1 mm from the fully closed position
- Fully close the window using the closing mechanism

On completion of each 5 000 cycles, the window shall be re-adjusted and all moving parts lubricated, in accordance with the manufacturer's instructions.

If the hardware is claimed to be maintenance free, no lubrication shall be allowed.

The force necessary to lift the window shall be measured and recorded at the commencement of the durability test

Measure and record the required force on termination of the test. There shall be no variation in the readings.