



SLOVENSKI STANDARD
SIST EN 1154:2000/A1:2003

01-oktober-2003

Stavbno okovje - Naprave za samodejno zapiranje vrat - Zahteve in preskusne metode

Buiding hardware - Controlled door closing devices - Requirements and test methods

Schlösser und Baubeschläge - Türschließmittel mit kontrolliertem Schließablauf - Anforderungen und Prüfverfahren

Quicaillerie pour le bâtiment - Dispositifs de fermeture de porte avec amortissement - Prescriptions et méthodes d'essai

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Ta slovenski standard je istoveten z: EN 1154:1996/A1:2002

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ICS:

91.190

Stavbna oprema

Building accessories

SIST EN 1154:2000/A1:2003

en,fr,de

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EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN 1154:1996/A1

December 2002

ICS 97.190

English version

Buiding hardware - Controlled door closing devices - Requirements and test methods

Quicaillerie pour le bâtiment - Dispositifs de fermeture de
porte avec amortissement - Prescriptions et méthodes
d'essai

Schlösser und Baubeschläge - Türschließmittel mit
kontrolliertem Schließablauf - Anforderungen und
Prüfverfahren

This amendment A1 modifies the European Standard EN 1154:1996; it was approved by CEN on 7 November 2002.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for inclusion of this amendment into the relevant national standard without any alteration. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the Management Centre or to any CEN member.

This amendment 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 Management Centre has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Malta, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.

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

Management Centre: rue de Stassart, 36 B-1050 Brussels

EN 1154:1996/A1:2002 (E)

Foreword

This document (EN 1154:1996/A1:2002) 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 June 2003, and conflicting national standards shall be withdrawn at the latest by September 2004.

This document has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association, and supports essential requirements of EU Directive(s).

For relationship with EU Directive(s), see informative annex ZA, which is an integral part of this document.

NOTE This amendment refers only to requirements under the Construction Products Directive (89/106/EEC), and CE marking is considered only in regard to this Directive. Where full CE marking may require compliance with other directives it is understood that this is done by following the relevant risk assessment(s) of these other directives, performed in addition to the requirements of this standard.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Malta, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the United Kingdom.

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Foreword

⇒ Insert the following new third paragraph: "This document has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association, and supports essential requirements of EU Directive 89/106/EEC"

⇒ Insert the following new fourth paragraph: "For relationship with EU directive 89/106/EEC, see informative annex ZA which is an integral part of this document".

⇒ Insert new fifth paragraph: " Wherever reference is made to classes, they are considered to be technical classes and not classes according to Article 3(2) of the Construction Products Directive (89/106/EEC)".

Delete fourth and fifth paragraphs.

Contents

⇒ *Insert 9:* Evaluation of conformity;

⇒ *insert:* Annex ZA (informative) - Clauses of this European Standard addressing the provisions of the EU Construction Products Directive (89/106/EEC)

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1 Scope

Final paragraph, replace "prEN 1155" with "EN 1155";

<https://standards.iteh.ai/catalog/standards/sist/d2f0dcc0-cd50-4c19-b7ad-6411c097a191/en-1154-2000-a1-2003>

⇒ Insert new paragraph: "Door closers incorporating door coordinator devices (with or without electrically powered hold-open devices) are covered by EN 1158".

2 Normative references

Replace "prEN 1155" with "EN 1155".

Replace "prEN 1670" with "EN 1670:1998".

Replace "prEN 1634" with "EN 1634-1 Fire resistance tests for door and shutter assemblies - Part 1: Fire doors and shutters"

⇒ *Insert:* "EN 1634-3 Fire resistance tests for door and shutter assemblies - Part 3: Smoke control doors and shutters"

3 Terms and definitions

3.2 *Delete* "annex C."

3.3 *Delete* "annex C."

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- 3.4 *Delete* "annex C."
- 3.5 *Delete* "annex C."
- 3.6 *Delete* "annex C."
- 3.7 *Delete* "annex C."
- 3.8 *Delete* "annex C."
- 3.9 *Delete*: "in Nm"
- 3.10 *Delete*: "in Nm"
- 3.12 Replace in the definition "delayed" with "retarded"
- 3.15 *Replace* "prEN 1155" with "EN 1155".

⇒ *Insert the following new definition:*

"3.21**standard installation**

normal fitting position stated by the manufacturer. e.g. door closer suitable for fitting to the door face on the "pull" side of the door."

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4 Classification

- 4.1 *Replace heading with:* "Coding system"
<https://standards.iteh.ai/catalog/standards/sist/d2f0dcc0-cd50-4c19-b7ad-d64794cb67da/sist-en-1154-2000-a1-2003>
- 4.3 *Replace heading with:* "Durability (second digit)"
- 4.4 *Replace heading with:* "Door closer power size (third digit)"

Replace first paragraph with: "Seven door closer power sizes are identified according to Table 1 of this European Standard"

Delete the example:

- 4.5 *Replace in the heading and in the first paragraph:* "Fire behaviour" with "Suitability for use on fire/smoke doors (fourth character)"

Replace final paragraph with: "Annex A indicates additional requirements for door closers manufactured to grade 1."

- 4.7 *First sentence, replace* "prEN 1670" with "EN 1670"

⇒ *Insert the following new subclause between 4.7 and Table 1:*

"4.8 Example of classification

The following example denotes a door closer capable of closing doors from at least 105° open, with durability grade 8, with a power size range from size 2 to size 5, not suitable for use on fire/smoke door assemblies, with safety grade 1 and with moderate resistance to corrosion

3	8	5	0	1	2
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		2			
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Table 1

Number 1 to 9 the columns in Table 1

Replace the word "und" in the headings to the columns with the word "and".

Replace Note 1, in Table 1 with: "The door widths given are for standard installations. In the case of unusually high or heavy doors, windy or draughty conditions or special installations, a larger power size of door closer may be used".

Replace Note 2, in Table 1 with: "The test door masses shown are only related to door closer power sizes for the purpose of the test procedure. These test door masses are not intended to indicate maximum values for actual use."

5 Requirements

5.1 Replace heading with: "Product information"

5.2 Replace heading with: "Performance"

5.2.1 Insert the word "relevant" before "performance requirements..."

5.2.5 Amend end of sentence to read: "...particular power size of the door closer being tested"

5.2.14 Number the paragraph 5.2.14.1 [SIST EN 1154:2000/A1:2003](https://standards.iteh.ai/catalog/standards/sist/d2f0dcc0-cd50-4c19-b7ad-d64794cb67da/sist-en-1154-2000-a1-2003)
<https://standards.iteh.ai/catalog/standards/sist/d2f0dcc0-cd50-4c19-b7ad-d64794cb67da/sist-en-1154-2000-a1-2003>
 ⇒ Insert the following new subclause:

"5.2.14.2 Durability of delayed closing

When tested in accordance with 7.3.4.5, the delay time at the conclusion of 500 test cycles shall be between 10 s and 30 s."

5.2.16 Replace heading with: "Zero position (for double action door closers only)"

5.2.17

⇒ Insert the following new subclause:

"5.2.17.3 The acceptance conditions defined in 5.7 of EN 1670:1998 shall be met for all surfaces of the door closer which are visible when the door closer is fitted in service."

5.2.17.1 Replace "prEN 1670: 1994" with "EN 1670".

5.2.18 Replace heading with: "Fire/smoke door suitability".

6 Test apparatus

6.3 Replace sentence with: "A force gauge or comparable device, with an accuracy of 1,5 % of reading, or better...."

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6.5 First paragraph, delete "annex D."

Second paragraph, delete "annex D."

7 Test methods

7.1.1 Amend tolerances given, to read :

— mass expressed in kilograms	(kg)	± 2 %
— length expressed in millimetres	(mm)	± 2 %
— angular position expressed in degrees	(°)	± 2°
— force expressed in newtons	(N)	± 2 %
— time expressed in seconds	(s)	± 5 %
— temperature expressed in degrees Celsius	(°C)	± 2 °C
— moment expressed in Newton-metres	(Nm)	± 2 %

7.1.2 ⇒ Insert the following new third paragraph: "In each case, the door closer shall be adjusted so that its minimum closing moment between 0° and 4° are as near as possible to the values specified in Table 1."

Insert a new fourth paragraph: "On door closers with a 'hold-open' facility, render that facility inoperable. If this is not possible, an equivalent model without a 'hold-open' facility shall be tested."

7.3.1 Delete third paragraph (which became fourth paragraph of 7.1.2).

7.3.3.1 Replace the second paragraph with: "Ensure that the test door has returned fully to the closed position before initiating the next opening operation."

7.3.4.1 Replace the second sentence in the first paragraph with: "Allow the door closer body surface to cool to within 2° C of ambient temperature."

Replace fourth paragraph with: "Allow the door to close from its maximum opening angle permitted by the door closer under test to 2°, and note the minimum closing force obtained during its travel. Take the average of three readings."

7.3.4.5 In the second paragraph, replace: "N.m" with "Nm"

Replace third paragraph with: "Restabilize the door closer to a temperature of 20°C, and open the test door to 95°. Verify that the closing time from 90° to the end of the delay zone can be adjusted to at least 20 s in accordance with 5.2.1."

⇒ insert the following new fourth and fifth paragraphs:

"Adjust the test door actuating mechanism to open the test door smoothly to 95° in a time of between 2 s and 4 s, allowing the test door to close under the control of the door closer under test. Adjust the door closer to a delay time of 20 s from 90° to the end of the delay zone. Ensure that the test door returns fully to the closed position, and after a waiting period of 270 s start the next opening operation. Continue cycling to a total of 500 test cycles.

During the last 5 cycles of the test, measure the delay time from 90° to the end of the delay zone and verify that each measurement is between 10 s and 30 s."

7.3.5.2.1 *Replace the second sentence with:* "The backcheck function is tested by setting up the actuating means of the test apparatus in such a way that it can accelerate the door to an opening angle of 50° at such a rate that it will :

- a) achieve an opening angle of 110° without backcheck effect in operation, (for door closers with adjustable backcheck) ;or
- b) have an angular velocity of one radian per second (1 rad/s) ± 10%, at an opening angle of 60° (for door closers with fixed backcheck and for door closers with an opening angle of less than 110°)".

7.3.5.2.2 *Amend the first sentence of the second paragraph to read:* "Allow the door closer body surface to cool to within 2 °C....."

7.3.5.2.3 *In the first sentence, replace "80°" with "90° "*

Amend the first sentence of the second paragraph to read: "Allow the door closer body surface to cool to within 2°C of the original ambient temperature recorded in 7.3.4.1 and verify"

7.3.6.1 *Amend the first sentence to read:* "Allow the door closer body surface to cool to within 2 °C....."

7.3.6.5 *Replace first sentence with:* "Restabilize the door closer to a temperature of 20 °C, and open the test door to 95°. Verify that the closing time from 90° to the end of the delay zone can be adjusted to at least 20 s in accordance with 5.2.14."

7.4.3 *Replace:* "prEN 1670" *with* "EN 1670".

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8 Marking

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Replace the wording of the note with: "The information under e) can be in a coded form."

Replace second paragraph with: "In the case of concealed door closers, the above information shall be readily visible after removal of the cover plate."

Replace third paragraph with: "For accessories (where there may be insufficient space to provide the information given in the clause), only item a) is mandatory."

Insert new fourth paragraph: "Accessories claiming compliance with annex A, shall be marked with the information a) to e) above. In preferential order the information shall be placed :

- 1) on the product itself; or
- 2) on a label attached to it; or
- 3) on the installation instructions; or
- 4) on its packaging."

⇒ insert note after last paragraph:

" For CE marking and labelling, see clause ZA.3 of annex ZA".

⇒ Insert the following new clause: