

This document is a preview generated by EVS

Operating forces - Test method - Part 2: Doors

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

<p>See Eesti standard EVS-EN 12046-2:2025 sisaldab Euroopa standardi EN 12046-2:2025 ingliskeelset teksti.</p> <p>Standard on jõustunud sellekohase teate avaldamisega EVS Teatajas.</p> <p>Euroopa standardimisorganisatsioonid on teinud Euroopa standardi rahvuslikele liikmetele kättesaadavaks 09.04.2025.</p> <p>Standard on kättesaadav Eesti Standardimis- ja Akrediteerimiskeskusest.</p>	<p>This Estonian standard EVS-EN 12046-2:2025 consists of the English text of the European standard EN 12046-2:2025.</p> <p>This standard has been endorsed with a notification published in the official bulletin of the Estonian Centre for Standardisation and Accreditation.</p> <p>Date of Availability of the European standard is 09.04.2025.</p> <p>The standard is available from the Estonian Centre for Standardisation and Accreditation.</p>
--	---

Tagasisidet standardi sisu kohta on võimalik edastada, kasutades EVS-i veebilehel asuvat tagasiside vormi või saates e-kirja meiliaadressile standardiosakond@evs.ee.

ICS 91.060.50

Standardite reprodutseerimise ja levitamise õigus kuulub Eesti Standardimis- ja Akrediteerimiskeskusele. Andmete paljundamine, taastekitamine, kopeerimine, salvestamine elektroonsesse süsteemi või edastamine ükskõik millises vormis või millisel teel ilma Eesti Standardimis- ja Akrediteerimiskeskuse kirjaliku loata on keelatud.

Kui Teil on küsimusi standardite autorikaitse kohta, võtke palun ühendust Eesti Standardimis- ja Akrediteerimiskeskusega: Koduleht www.evs.ee; telefon 605 5050; e-post info@evs.ee

The right to reproduce and distribute standards belongs to the Estonian Centre for Standardisation and Accreditation. No part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying, without a written permission from the Estonian Centre for Standardisation and Accreditation.

If you have any questions about copyright, please contact Estonian Centre for Standardisation and Accreditation: Homepage www.evs.ee; phone +372 605 5050; e-mail info@evs.ee

English Version

Operating forces - Test method - Part 2: Doors

Forces de manoeuvre - Méthode d'essai - Partie 2:
Portes

Bedienungskräfte - Prüfverfahren - Teil 2: Türen

This European Standard was approved by CEN on 2 March 2025.

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. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN-CENELEC Management Centre or to any CEN member.

This European Standard 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 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, Türkiye and United Kingdom.



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	4
2 Normative references	4
3 Terms and definitions	4
4 Principle of test	5
5 Test apparatus	5
5.1 Test rig.....	5
5.2 Equipment for application of forces and torques	5
5.3 Alternative equipment for application of forces and torques with weights	5
6 Test specimen	6
7 Test procedures	6
7.1 General.....	6
7.2 Load point.....	6
7.3 Procedure for determining the closing force.....	7
7.3.1 Applying the force by means of weight and pulley	7
7.3.2 Applying the force by other means.....	7
7.4 Procedure for determining the force and torque for operating the building hardware	7
7.5 Procedure for determining the minimum force to commence and maintain the motion	8
8 Test sequences	8
8.1 General.....	8
8.2 Specimens without self-closing devices.....	9
8.3 Specimens with self-closing devices	9
9 Expression of results	9
10 Test report	9
Annex A (informative) Typical test set-up for hinged or pivoted doorset	11
Annex B (informative) Typical test set-up for sliding doorset	12
Annex C (informative) Measuring points for handles, emergency exit devices and panic devices	13
Annex D (informative) Typical test set-up for determining the minimum force to open the door leaf	16
Bibliography	17

European foreword

This document (EN 12046-2:2025) 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 October 2025, and conflicting national standards shall be withdrawn at the latest by October 2025.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN shall not be held responsible for identifying any or all such patent rights.

This document will supersede EN 12046-2:2000.

In comparison with the previous edition, the following technical modifications have been made:

- clarification of the test methods;
- extension of the scope to cover doorsets with emergency or panic exit devices.

This document is one of a series of standards for windows and doors.

The EN 12046 series of standards *Operating forces — Test method* currently consists of:

- Part 1: Windows;
- Part 2: Doors.

Any feedback and questions on this document should be directed to the users' national standards body. A complete listing of these bodies can be found on the CEN website.

According to the CEN-CENELEC Internal Regulations, the national standards organisations 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, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Türkiye and the United Kingdom.

1 Scope

This document covers hinged/pivoted and sliding doorsets with engaging fasteners (e.g. latches, deadbolts) for pedestrian use. It defines the test methods to determine the forces to open/close doors and to engage/release and lock/unlock the building hardware using a key or handle. It is only applicable to the manual operation of doorsets.

These doorsets can include:

- emergency or panic exit devices;
- door closing devices.

NOTE The use of some windows involves engaging fasteners (e.g. latches, deadbolts) and can be tested in accordance with this document. Throughout the text where “door leaf”/”door leaves” is written this can also be read as “casements”/”sashes”.

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 179, *Building hardware - Emergency exit devices operated by a lever handle or push pad, for use on escape routes - Requirements and test methods*

EN 1125, *Building hardware - Panic exit devices operated by a horizontal bar, for use on escape routes - Requirements and test methods*

EN 12519, *Windows and pedestrian doors - Terminology*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in EN 12519 and the following apply.

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

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

3.1

manual operating forces

manual operating forces indicate the force needed to operate doors manually

3.2

linear motion

movement of casement, sash or building hardware in a straight line when acted upon by an operating force; also movement through an arc of which the radius is large in proportion to the length of the arc

3.3

rotary motion

movement, usually of building hardware but also applicable to a casement or sash, in a circular path when acted upon by an operating torque, e.g. the turning action of the bow of a key