

Windows, doors, shutters — Burglar resistance — Test method for the determination of resistance to manual burglary attempts

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National foreword

This Draft for Development is the English language version of EN 1630:1999.

This publication is not to be regarded as a British Standard.

It is being issued in the Draft for Development series of publications and is of a provisional basis, so that information and experience of its practical application may be obtained.

Comments arising from the use of this Draft for Development are requested so that UK experience can be reported to the European organization responsible for its conversion into a European Standard. A review of this publication will be initiated 2 years after its publication by the European organization so that a decision can be taken on its status at the end of its three-year life. The commencement of the review period will be notified by an announcement in *Update Standards*.

According to the replies received by the end of the review period, the responsible BSI Committee will decide whether to support the conversion into a European Standard, to extend the life of the prestandard or to withdraw it. Comments should be sent in writing to the Secretary of BSI Technical Committee B/538, Doors, windows, Shutters, hardware and curtain walling, at 389 Chiswick High Road, London W4 4AL, giving the document reference and clause number and proposing, where possible, an appropriate revision of the text.

A list of organizations represented on this committee can be obtained on request to its secretary.

Cross-references

The British Standards which implement international or European publications referred to in this document may be found in the BSI Standards Catalogue under the section entitled “International Standards Correspondence Index”, or by using the “Find” facility of the BSI Standards Electronic Catalogue.

Summary of pages

This document comprises a front cover, an inside front cover, pages i and ii, the ENV title page, pages 2 to 21 and a back cover.

This standard has been updated (see copyright date) and may have had amendments incorporated. This will be indicated in the amendment table on the inside front cover.

This Draft for Development, having been prepared under the direction of the Sector Committee for Building and Civil Engineering, was published under the authority of the Standards Committee and comes into effect on 15 October 1999

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Contents

	Page
National foreword	Inside front cover
Foreword	2
Text of ENV 1630	3

Windows, doors, shutters — Burglar resistance — Test method for the determination of resistance to manual burglary attempts

Fenêtres, portes, fermetures — Résistance, à l'effraction — Méthode d'essai pour la détermination de la résistance aux tentatives manuelles d'effraction

Fenster, Türen, Abschlüsse — Einbruchhemmung — Prüfverfahren für die Ermittlung der Widerstandsfähigkeit gegen manuelle Einbruchversuche

This European Prestandard (ENV) was approved by CEN on 25 December 1997 as a prospective standard for provisional application.

The period of validity of this ENV 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 ENV can be converted into a European Standard.

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

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

CEN

European Committee for Standardization
Comité Européen de Normalisation
Europäisches Komitee für Normung

Central Secretariat: rue de Stassart 36, B-1050 Brussels

Foreword

This European Prestandard has been prepared by Technical Committee CEN/TC 33 “Doors, windows, shutters and building hardware”, the secretariat of which is held by AFNOR.

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

The status of European Prestandard is proposed because some countries do not yet have experience in testing with manual burglary attempts. The ENV phase gives all countries the possibility of gaining experience in the application of this Prestandard, of comparing experiences and of harmonising the procedure. During this time it will be possible to determine whether parts of the manual attempt test methods can be replaced by test methods with a higher degree of reproducibility.

Noise is a dissuasive factor which is related to environment. Noise has to be taken into account in the definition of the different tool sets but is not taken into account during the test.

This ENV 1630 is a testing Prestandard, so its application does not depend at all on the material of the product.

This European Prestandard takes into account the burglary methods known and most commonly used at the present time. This European Prestandard includes tool sets. Depending on new knowledge or new forms of attack it may be necessary to revise the tool sets after a few years.

To define the burglar resistance of a product this European Prestandard shall be used in conjunction with ENV 1627 “Windows, doors shutters — Burglar resistance — Requirements and classification”, ENV 1628 “Windows, doors, shutters — Burglar resistance — Test method for the determination of resistance under static loading” and ENV 1629 “Windows, doors, shutters — Burglar resistance — Test method for the determination of resistance under dynamic loading”.

Contents

	Page
Foreword	2
1 Scope	3
2 Normative references	3
3 Definitions	3

	Page
4 Test installation	4
4.1 Test rig	4
4.2 Test team	4
4.3 Test room climate	4
4.4 Measurement and recording devices	4
5 Test specimen	4
5.1 General	4
5.2 Preparation and examination of the specimen	5
6 Procedure	5
6.1 Areas of attack	5
6.2 Pre-test	5
6.3 Main test	6
6.4 Measurement of times	6
6.5 Attack side and attack height	6
6.6 Additional tests	6
6.6.1 General	6
6.6.2 Extraction of cylinders	6
7 Tool sets	6
8 Test report	7
Annex A (normative) Tool sets	15
Annex B (informative) Self-drilling screws with tapping screw thread, Form K, 560 HV	21
Figure 1 — Example of a test rig	9
Figure 2 — test specimen in sub-frame	10
Figure 3 — hinged door	10
Figure 4 — hinged door	10
Figure 5 — sliding door	10
Figure 6 — Test specimen in sub-frame	11
Figure 7 — Side-hinged window	11
Figure 8 — Side-hinged window	11
Figure 9 — Test specimen in sub-frame	12
Figure 10 — Wing/folding shutter	12
Figure 11 — Wing/folding shutter	12
Figure 12 — Example of mounting arrangements for roller-shutters	13
Figure 13	14
Figure 14	14
Figure 15	14
Figure 16	14
Figure A.1 — Tool set A	15
Figure A.2 — Tool set B	16
Figure A.3 — Tool set C	17
Figure A.4 — Tool set D	18
Figure A.5 — Tool set E	19
Figure A.6 — Additional tool set	20

1 Scope

This European Prestandard specifies the test method for the determination of resistance to manual burglary attempts in order to assess the burglar resistant properties of windows, doors and shutters.

2 Normative references

This European Prestandard 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 European Prestandard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies.

ENV 1627:1999, *Windows, doors, shutters — Burglar resistance — Requirements and classification.*

ENV 1628:1999, *Windows, doors, shutters — Burglar resistance — Test method for the determination of resistance under static loading.*

ENV 1629:1999, *Windows, doors, shutters — Burglar resistance — Test method for the determination of resistance under dynamic loading.*

3 Definitions

For the purposes of this European Prestandard, the following definitions apply:

3.1

attack side

the side of the test specimen defined by the applicant as the side exposed to attack

3.2

test specimen

complete, fully functioning window, door or shutter

3.3

sub-frame

a surrounding frame into which the test specimen is mounted by the applicant, in accordance with the manufacturer's instructions. The sub-frame is supplied by the applicant and takes the place of the various forms of wall construction (see *Figure 2 to Figure 16*)

3.4

test rig

a surrounding substantial steel frame with movable steel supports into which the sub-frames containing test specimens of various dimensions can be mounted (see *Figure 1*)

3.5

tool set

the set of tools allocated for use for a particular resistance class (see *Annex A*)

3.6

resistance time

the working time of the test person carrying out the manual burglary test, including times of less than 5 s each for tool changes, e.g. exchanging a screw driver for a crow bar

3.7

rest time

the time taken when the test person carrying out the manual burglary test interrupts his work for a rest. It is not compulsory to take a rest

3.8

time for tool changes

the time for the exchange or replacement of a tool or a part thereof, e.g. a defective drill, a blunt saw blade etc.

3.9

observation time

the time required for the leader of the test team to observe the test and to decide on the further execution of the test. The observation time is not included in the resistance time

3.10

total test time

the combination of the resistance times, the rest times, the times for tool changes and the observation times

3.11

accessible opening

an opening permitting a test block of cross section of any of the dimensions shown below to be passed through it

- a rectangle of 400 mm × 250 mm or
- an ellipse of 400 mm × 300 mm or
- a circle of diameter 350 mm

4 Test installation

4.1 Test rig

The test rig shall consist of a surrounding strong steel frame with movable steel supports into which the sub-frames containing test specimens of various dimensions can be mounted. All connecting parts, especially corner connections, shall resist the test loads during the test. The test rig shall not impede the execution of the test (*see Figure 1*).

4.2 Test team

The test team shall be employees of the testing laboratory. The team shall comprise:

- A test team leader: His function is to direct and control the test work during the total test time together with the subsequent production of a test report.
- A timekeeper: His function is confined to time keeping and compiling the record of the test work.
- An operator: He carries out the manual burglary test.

Two of these three persons shall be able to act as operative.

4.3 Test room climate

Test room temperature from 15 °C to 30 °C

Relative humidity from 40 % to 60 %

4.4 Measurement and recording devices

4.4.1 Measuring equipment

The following equipment shall be provided:

- a) chronometer for measuring the resistance time
- b) chronometer for measuring the total test time
- c) suitable measuring equipment for determining the temperature of the test specimen and moisture content of wood

4.4.2 Video recording

Pre-test and main test shall be recorded with a video recorder. The videotape and any copies of it shall not be published nor shown publicly.

5 Test specimen

5.1 General

The test specimen shall be a functioning window, door or shutter complete with its frames, hardware, guide rails, curtain, tube, roller box and accessories, as appropriate.